PERIODICAL ROOM
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OCT 3 1928

THE AMERICAN School Board Journal

A PERIODICAL OF SCHOOL ADMINISTRATION

October, 1928

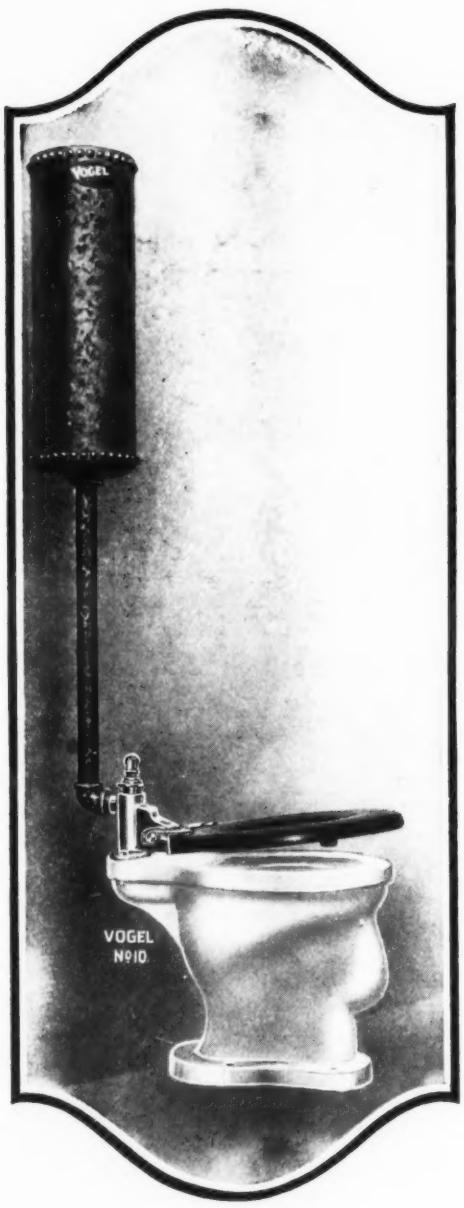
THE BRUCE PUBLISHING COMPANY

CHICAGO MILWAUKEE, WIS. NEW YORK

New VOGEL PATENTED Number TEN

Automatic School Water Closet

DESIGNED TO WITHSTAND THE HARDEST USAGE



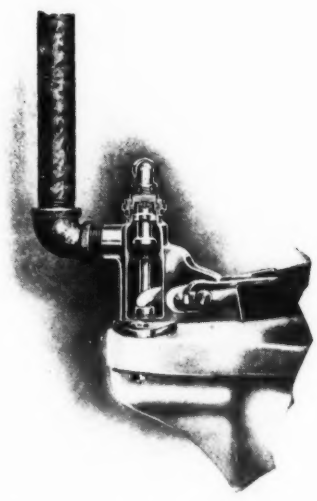
When the closet seat is depressed the supply valve packing is drawn down from the top supply valve seat, and the flush valve packing is brought into contact with the flush valve seat, allowing water to enter the tank through the flush pipe. Upon the pressure of water and air in tank becoming equalized with the service pressure, no more water enters the fixture. This water is held in readiness for the release of the seat.

When the seat is released the rod which carries both supply and flush valve packings is forced upward closing the water supply at the inverted supply valve seat in the swivel at the top. The flush valve, by the same movement, is opened and a strong flush of water from tank to bowl ensues.

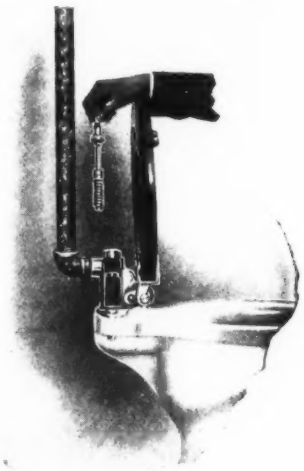
The tank is practically indestructible as is also the flush pipe. The valve is constructed heavily throughout of good quality material and attached to the bowl by a very strong connection. The closet seat is of a durable make and the bowl is of vitreous china.

Economical in the use of water.

The simplest and most durable automatic water closet.



A sample valve was tested 150,000 operations without any appreciable wear.



Sold by Wholesalers of Plumbing Supplies Everywhere

JOSEPH A. VOGEL CO.

Wilmington, Delaware **St. Louis, Missouri**

"NATURAL"

ASSURES YOU
PERMANENCY AND ECONOMY

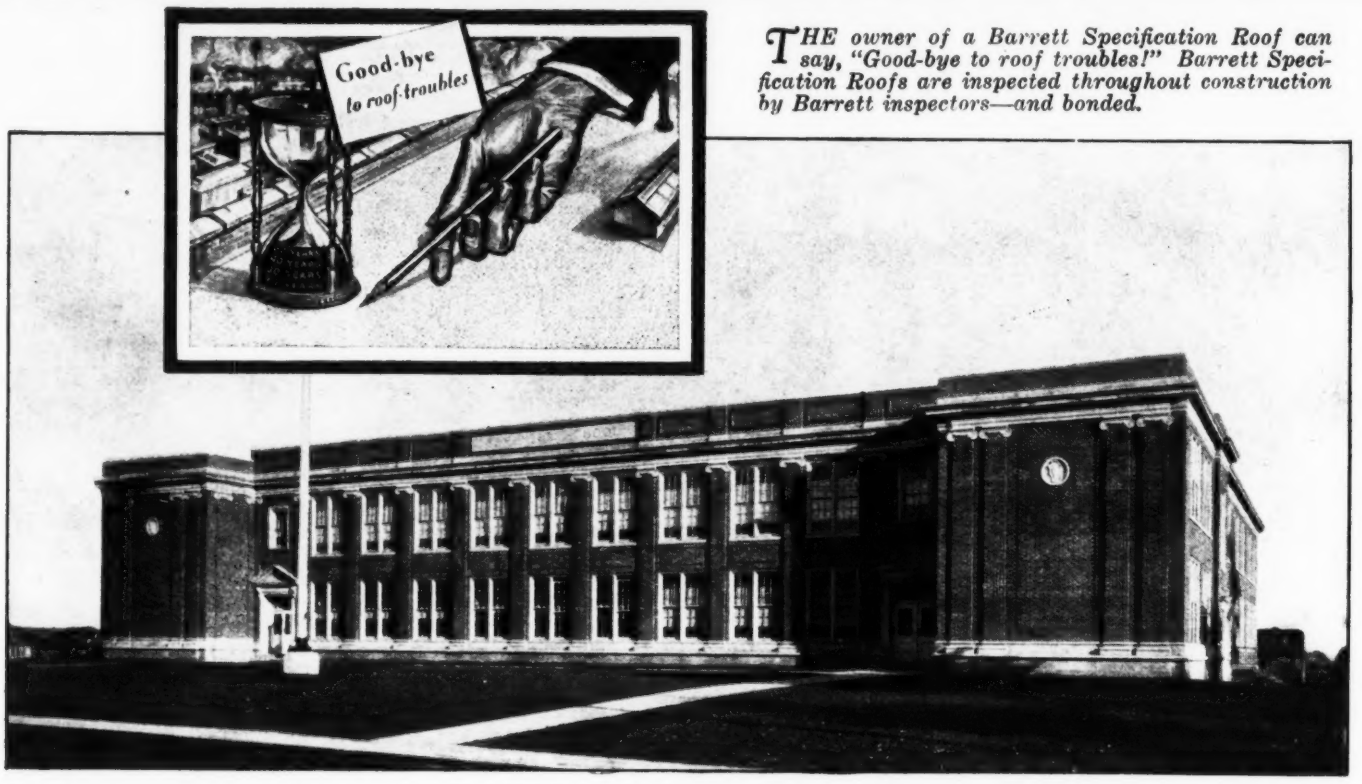
Natural Slate is a product of Mother Nature — a genuine material.

NATURAL is your protection! It is your assurance of Permanency and Economy. Natural Slate Blackboards are always in first class condition — no depreciation — no upkeep costs whatsoever — easy to clean at all times.

NATURAL SLATE BLACKBOARD COMPANY, 1008 Robinson Ave., Pen Argyl, Pa.

Boston, Pittsburgh, Cleveland, New York City, Kansas City, Minneapolis, Buffalo, Toronto, Memphis, Cincinnati, Washington, Chicago, New Orleans, Atlanta, St. Louis, Los Angeles, Philadelphia, Tampa, Waco

NATURAL SLATE BLACKBOARDS



THE owner of a Barrett Specification Roof can say, "Good-bye to roof troubles!" Barrett Specification Roofs are inspected throughout construction by Barrett inspectors—and bonded.

A Barrett Specification Roof protects the Schuyler School, Kearny, N. J. *Architects:* Guilbert & Betelle, Newark, N. J. *Contractors:* F. & C. Haerter, West New York, N. J.

Another School Roof is going to be *Forgotten!*

KEARNY, N. J., is justifiably proud of its Schuyler School — built to shelter 800 of its youngsters as they advance from their primers to their careers. The principle "nothing is too good" applies to school construction above all others. And the school commissioners of Kearny applied the idea to the utmost.

Materials approved for its construction can be counted upon to live up to every demand made upon them by time, wear, and weather. Architects and contractors were selected with almost jealous care.

And, as it so consistently happens, the type of roof decided upon was the Barrett Specification Roof. When the Barrett Specification Roof is put down, a 10 or 20 year Surety Bond is issued . . . guaranteeing the owners against repair or maintenance expense for the full period promised in the Bond. But 20 years is *not* the limit! Hundreds of Barrett Pitch and Felt Roofs laid 30, 40, and 50 years ago are still giving expense-free service to their owners. *There* is economy—and unfailing protection.

And Barrett Specification Roofs have the advantage of fire-safety. The slag or gravel surface is immune to flying sparks, and the roof itself possesses the necessary tensile strength to be self-supporting even in extreme emergency. That is why the Barrett Specification Roof carries the Class A . . . base rating . . . by the National Board of Fire Underwriters.

For further information regarding these economical, fire-safe roofs address Built-Up Roof Department, The Barrett Company, 40 Rector Street, New York.

Depend on the Barrett Approved Roofer

Throughout the United States and Canada a limited number of roofing contractors have been approved by Barrett to lay the Barrett Specification Bonded Roof. These men have earned a reputation for doing efficient work—a name for absolute dependability.

Good workmanship is a big part of any good roof. Be sure of good workmanship. Take your roof problems to the Barrett Approved Roofer.

THE BARRETT COMPANY, 40 RECTOR STREET, NEW YORK CITY

IN CANADA:
The Barrett Company, Ltd.
5551 St. Hubert Street, Montreal, Quebec, Canada

Barrett Specification Roofs

KEWANEE STEEL BOILERS

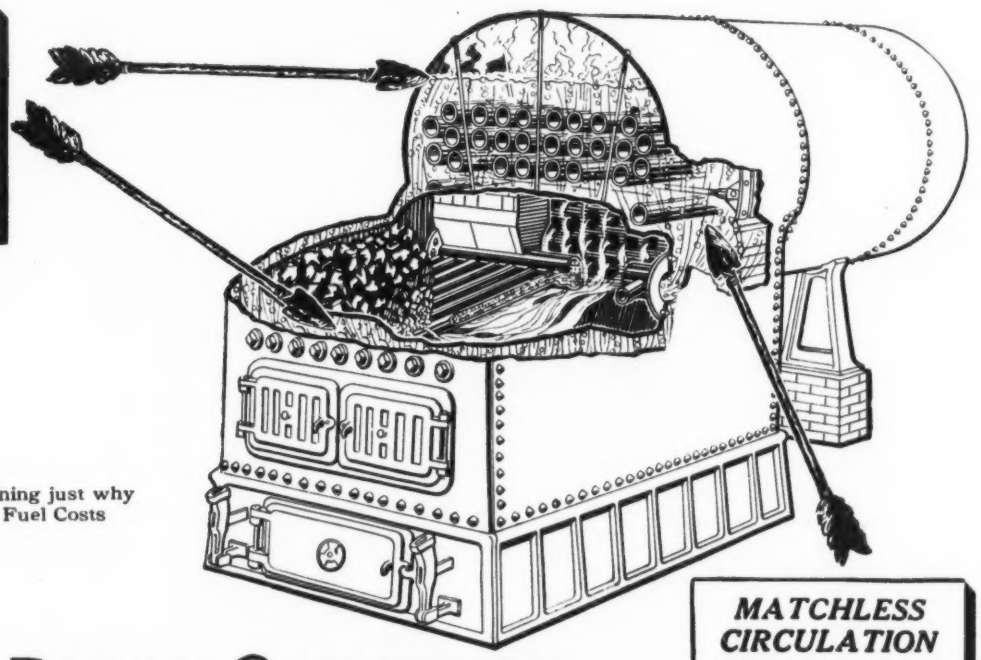
Lower Heating Costs

The right place for plenty of water is in the boiler and not in the steam lines and radiators. The Kewanee boiler style is not cramped, so the steam is delivered dry.

Kewanee provides ample volume of water in rapid circulation in the boiler, it is neither agitated into unmanageable commotion nor forced out into the steam lines by the liberated steam bubbles. It sticks to the job of absorbing heat from the heating surface. That is another reason why Kewanee is able to show *lower heating costs.*

WATER CONTENT

Water content is large enough to absorb all the heat of combustion without undue disturbance. So the water line keeps steady in the gauge glass.



MATCHLESS CIRCULATION

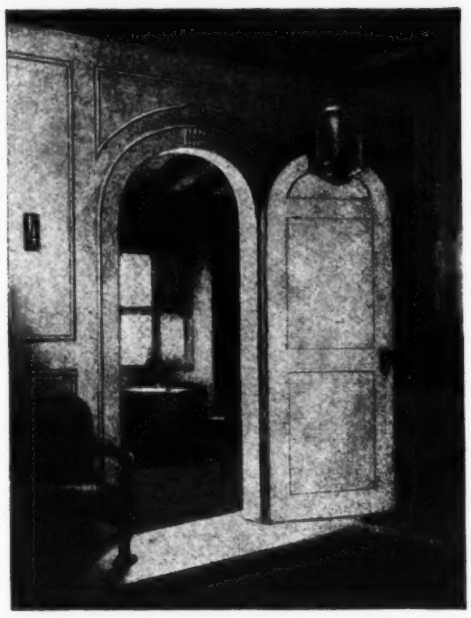
Matchless circulation is forced by the pumping action of the water grate and header built-in at the hottest fire zone.

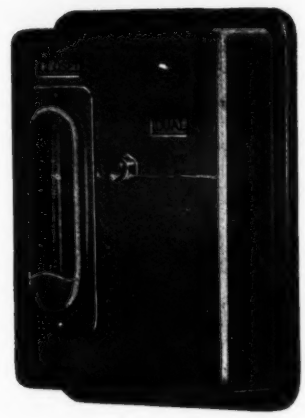
Fifth of a Series—explaining just why Kewanee Boilers Cut Fuel Costs

KEWANEE BOILER CORPORATION

Kewanee, Illinois

Branches in 40 Principal Cities





Burning 40% More Coal Than Necessary . . . . Is Not Efficient School Board Management . .

Johnson
DUAL THERMOSTAT

Automatically controlling each schoolroom constantly and correctly at the degree of temperature required during school hours, regardless of outdoor weather changes: Johnson Dual Thermostat System supplies a night time fuel economy as well. At the close of school for the day, operation of a wall switch turns off the heat in all of the rooms, save those to be used at night: for night classes, meetings, etc. Next morning the same wall switch operation turns on the heat in all of the rooms again for the day. A day and night heat control convenience and fuel economy factor of invaluable worth; ***and definitely essential.***

To allow your schools to continue without Johnson Dual Thermostat Heat Control, and thus continue to consume 25 to 40 per cent more coal than required and necessary, certainly is contrary to your board's policy and purpose. The thing to do is to install Johnson Dual Thermostat Heat Control in all of your schools, and thus save that 25 to 40 per cent annual fuel waste and excess cost and extravagance.

JOHNSON SERVICE COMPANY
MILWAUKEE WISCONSIN U. S. A.
AUTOMATIC TEMPERATURE REGULATION SINCE 1885
TWENTY-NINE BRANCHES — UNITED STATES AND CANADA

JOHNSON
SYSTEM OF TEMPERATURE AND HUMIDITY CONTROL

The All Metal System . . . .

JSC

. . . . . The Dual Thermostat System

Boiler room of John Marshall High School, Minneapolis, Minnesota. Three 18,000' Pacific Down Draft Boilers for heating and one 6,500' Pacific Down Draft Boiler for hot water heating and steam tables installed by A. B. Donaldson Company.

John Marshall High School, Minneapolis, Minnesota. Planned by the Minneapolis Board of Education Bureau of Buildings. E. H. Enger, Architectural Engineer. F. H. Hafey, Senior Architectural Draftsman. A. L. Sanford, Mechanical Engineer.

5 MINNEAPOLIS PUBLIC SCHOOLS PACIFIC HEATED

Minneapolis is known throughout the country for its carefully planned school buildings and its exacting requirements for mechanical equipment.

Temperatures in Minneapolis range to —33°, with many consecutive days of below-zero weather. All heating loads for Minneapolis public schools are based on heating buildings from —10° to +70°. Consequently, a boiler that will develop a 50% overload is absolutely necessary.

On actual capacity tests made by the Engineering Department of the Minneapolis Board of Education, Pacific Down Draft Boilers developed an 81½% overload, with high efficiency!

High overload capacity, ease and economy of operating; also saving of floor space make Pacific Down Draft Boilers the safe choice for heating school buildings.

Write today for complete information.

PACIFIC STEEL BOILER CORPORATION

WAUKEGAN, ILLINOIS
BRISTOL, PA.

SALES OFFICES IN 58 CITIES

Division of U. S. RADIATOR CORP., DETROIT, MICH.

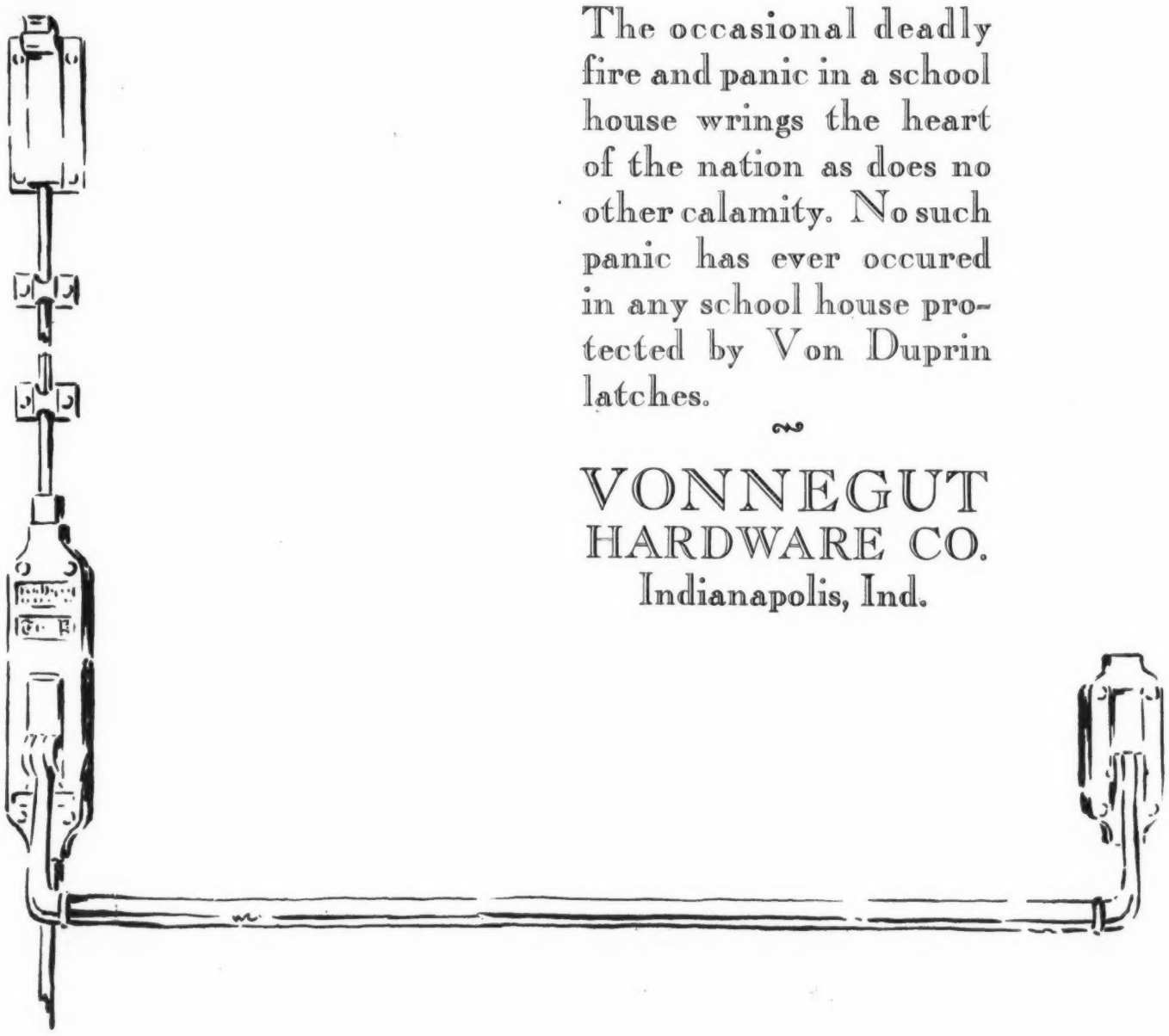
PACIFIC
STEEL HEATING BOILERS

Von Duprin

Self-Releasing Fire Exit Latches

Sweets, Pages B2036-2039

AIA 2715



The occasional deadly fire and panic in a school house wrings the heart of the nation as does no other calamity. No such panic has ever occured in any school house protected by Von Duprin latches.

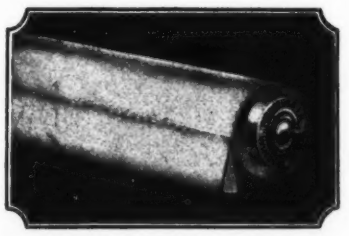
VONNEGUT
HARDWARE CO.
Indianapolis, Ind.

The REVOLT of ROLLO MEEKER

RECORDS show that Rollo Meeker last lost his temper in the month of May, 1897. (He was married in June, 1897.)

But look at him now. Roaring! Raging! Ramping! Rampaging!

For five years, he's been politely urging his wife to do something about those window shades. To get rollers that would really roll. This morning—as usual—it took him fifteen minutes to get the window shades in the living room adjusted. And, suddenly, he just naturally boiled over.

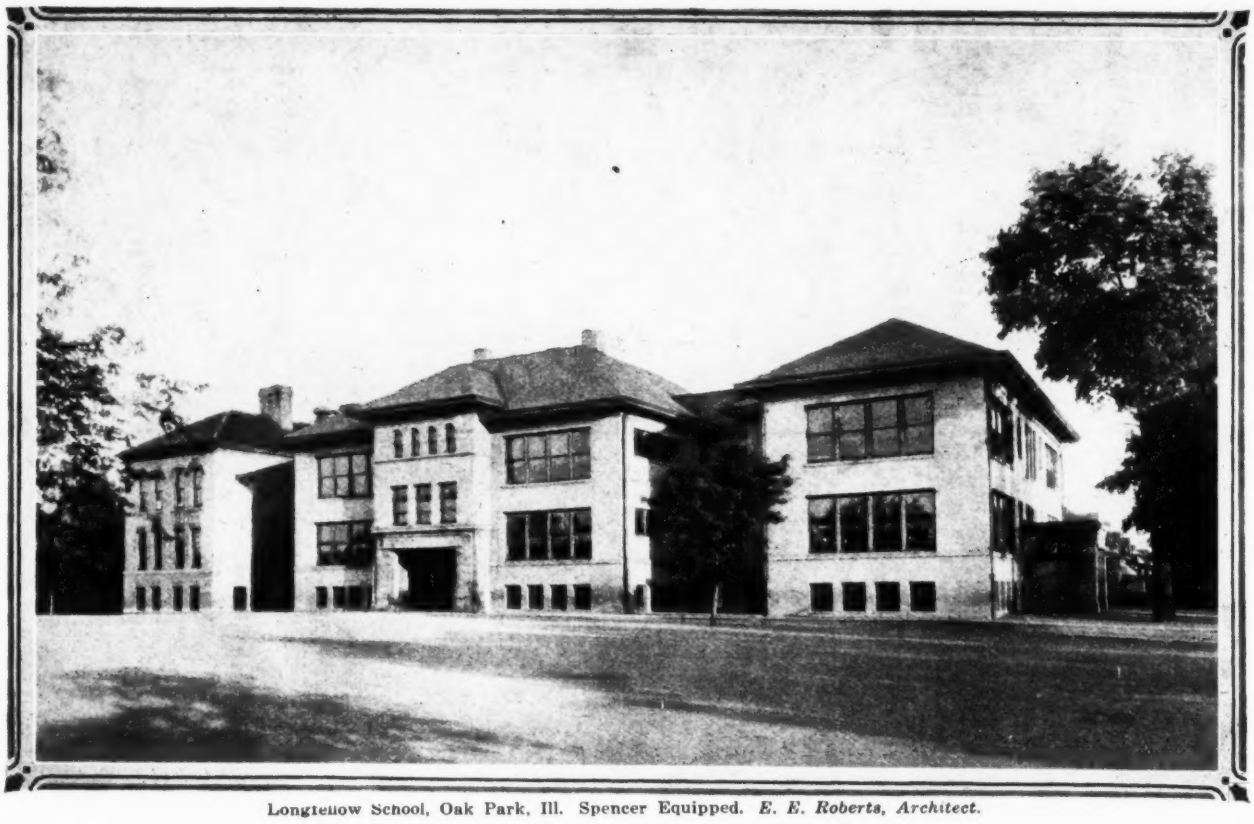


Don't wait until everybody's patience is exhausted with those old shade rollers (the jumpy, squawky kind) in your school. Any first-class department, house-furnishing or window shade store will estimate on the new *Columbia* Rollers—the kind with 30% to 40% reserve power—nickel plated ends—RUST-PROOF—self-lubricating bearings that are QUIET.

The *Columbia* Mills, Inc., 225 FIFTH AVENUE, NEW YORK

Baltimore Boston Chicago Cincinnati Cleveland Dallas Detroit
Fresno Kansas City Los Angeles Minneapolis New Orleans Philadelphia
Pittsburgh Portland (Ore.) St. Louis Salt Lake City San Francisco Seattle

Columbia GUARANTEED WINDOW SHADES *and* ROLLERS



Longfellow School, Oak Park, Ill. Spencer Equipped. *E. E. Roberts, Architect.*

School Tests Show—

Spencer Central Cleaning System Pays

Here are a few of the results found by observing cleaning methods in many schools as reported by C. E. Reeves, Ph.D., in "An Analysis of Janitor Service in Elementary Schools":

1. The use of the central vacuum cleaner eliminates the portion of dust on furniture and woodwork caused by sweeping, since it takes all dust directly to the basement where it may be burned. It thus makes the morning dusting a much easier and more rapid process.
2. The vacuum itself is sometimes used to dust the tops of desks and ledges on woodwork.
3. Use of the vacuum keeps the floor cleaner and, in the case of unoiled floors, will reduce the frequency requirement for scrubbing or mopping.
4. Because it does not stir up the dust, use of the vacuum cleaner makes the need for window washing less frequent.
5. The expulsion of dust from the classroom directly to the basement is the best means of disposing of bacteria which cling to dust particles. The floor brush circulates dust into the air where it may be breathed.
6. The use of the central vacuum cleaner eliminates any possible objection to cleaning vacant special rooms and corridors during school hours.
7. The central vacuum cleaner makes it possible to clean rooms in which teachers or several pupils remain after school hours without raising dust for them to breathe.
8. Erasers and chalk trays can be cleaned more thoroughly and rapidly by means of the vacuum cleaner than by hand.
9. Janitors maintain that walls and ceilings can be dusted more rapidly and thoroughly with a vacuum cleaner than with a wall brush.
10. Janitors agree that brushes of all sorts, dusters, etc., can be cleaned more thoroughly and rapidly by means of the vacuum than by other means.
11. Janitors state that rugs, carpets, and door-mats can be cleaned more thoroughly and rapidly with a vacuum cleaner than by means of beating.
12. A central vacuum cleaner is handy as a means of removing dust bound to accumulate in a furnace room, and by means of an attachment, it can be used to remove dust from the furnace tubes, thus, through better and more frequent cleaning, saving almost enough coal to pay for operating the vacuum.

More Than 10,000

Schools
Churches
Office Buildings
Hospitals
Banks, etc.,
are
Spencer Cleaned.

Let us send you our list of over 1500 schools that use the Spencer System.

Why not ask our nearest representative how much the Spencer Central Cleaning System would cost and what it would do for your school?

THE SPENCER TURBINE CO.

492 NEW PARK AVE., HARTFORD, CONN. — CENTRAL CLEANING SYSTEMS — REPRESENTATIVES IN 50 CITIES

2689

Our Contribution
to the art of Heating & Ventilation

FIVE YEARS AGO when the Herman Nelson light weight, compact, indestructible radiator was placed on the market, it was immediately accepted as the greatest advance in the art of Heating and Ventilation in a generation. It has made possible heating and ventilation dependability and performance hitherto unattainable.

The Herman Nelson Wedge Core Radiator is an exclusive feature of all Herman Nelson Heating and Ventilating Products and accounts for their unequaled performance.

HEATING · VENTILATING · COOLING · DRYING · CONDENSING

UNIVENT

for the ventilation of schools, hospitals, offices and other buildings presenting an acute ventilating problem.

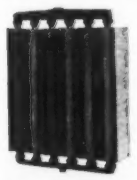
HERMAN NELSON *Invisible* RADIATOR

. . . supersedes all previous radiators, radiator cabinets or enclosures. Occupies no room space and makes possible any desired decorative scheme or furniture arrangement. Indestructible in service.

THE HERMAN NELSON hiJet UNIT HEATER

It operates at steam pressures from 1 to 150 lbs., and offers the better and more economical way of diffusing heat in Factories, Railroad Shops, Roundhouses, Mills, Warehouses, Garages, Gymnasiums and Industrial Buildings.

Herman Nelson Radiator Sections
for Blast Heating and Cooling



Indestructible, operating at any steam pressure from 1 to 150 lbs., non-corrosive and leak-proof.

May be arranged in banks to solve any special problem of heating or cooling.

THE HERMAN NELSON CORPORATION · *Moline, Illinois*

Builders of Successful Heating and Ventilating Equipment for over 20 Years

Sales and Service

BELFAST, ME.	UTICA	SCRANTON	SAGINAW	CINCINNATI	DES MOINES	ST. LOUIS	DALLAS	SALT LAKE CITY	SAN FRANCISCO
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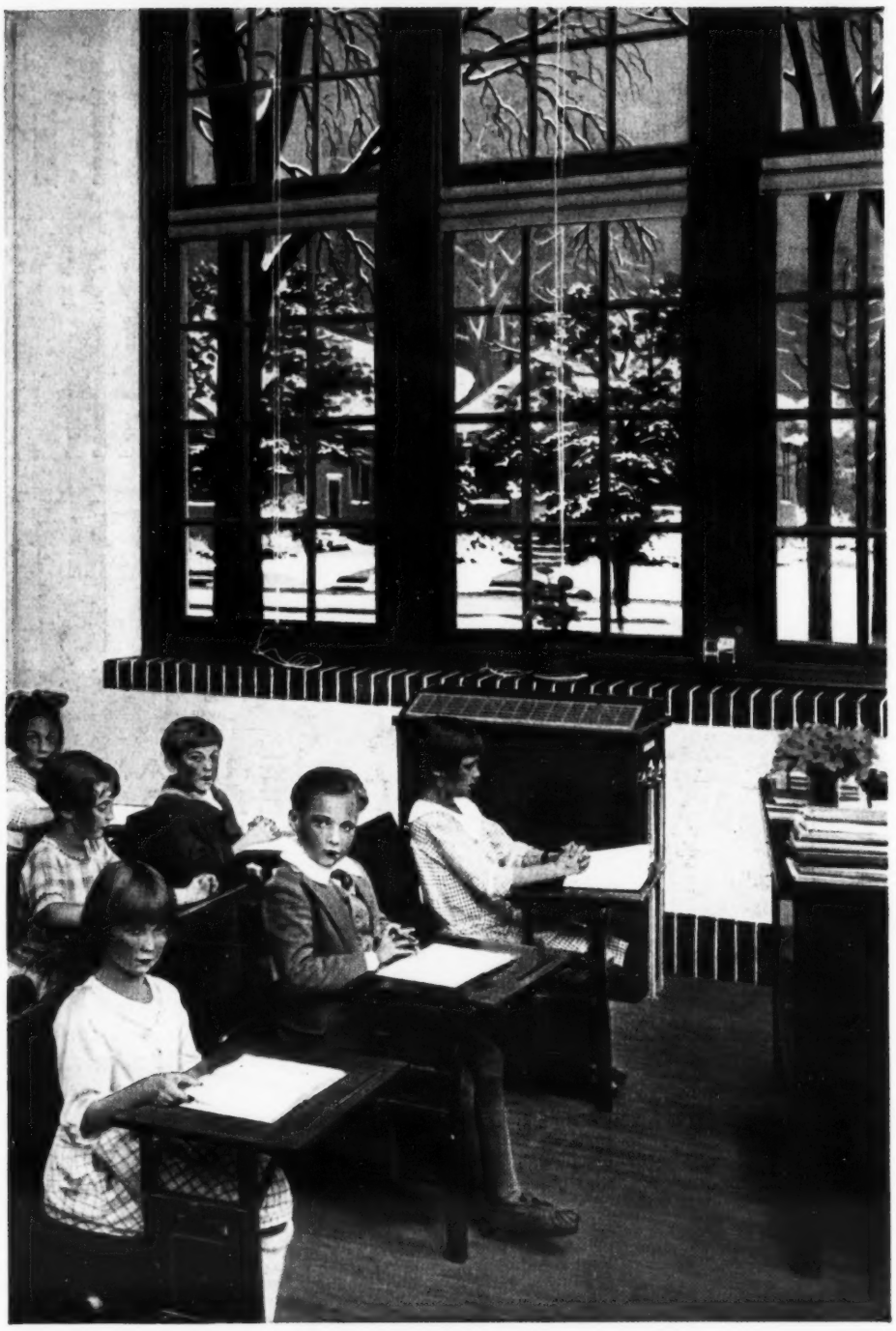
NEW YORK CITY	WASHINGTON, D. C.	GRAND RAPIDS	COLUMBUS	CHICAGO	MINNEAPOLIS	MEMPHIS	DENVER	SEATTLE	WINNIPEG, MAN.



Univent *and* Glass *make the difference*

Here is VENTILATION *that cannot be duplicated*

SUCCESSFUL results of the Univent have brought national recognition to the basic idea of unit ventilation. With success has come imitation; but—imitation is not duplication.

This fact is becoming more and more known: the results of Univent Ventilation *cannot* be duplicated by any other unit ventilator. The Univent's important features are exclusive to the Univent.

The Univent is a complete individual ventilating machine. Draws air directly from out of doors. Cleans it. Warms it to a comfortable temperature. Distributes it gently to every corner of the room—without draft. Simpler than opening windows and there is no question as to results—

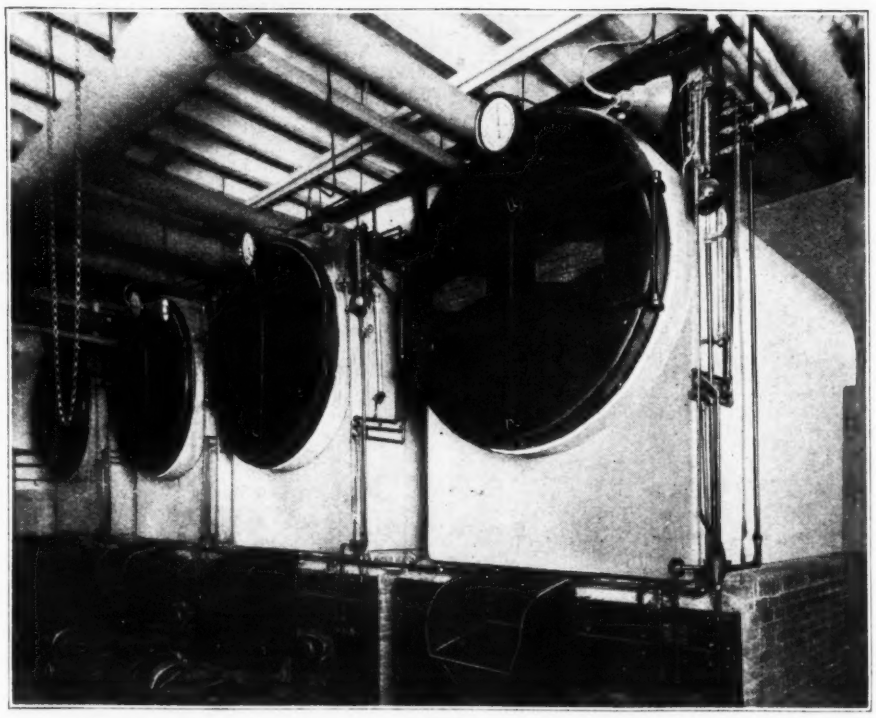
no other ventilator gives

because Univent results are obvious.

Better health and attendance records—better concentration of pupils—satisfied teachers—these are some of the results credited to the Univent by school authorities, architects and engineers everywhere who endorse it as the most simple, efficient and economical system of ventilation known. Write for free book of facts, No. 29. The Herman Nelson Corporation, Moline, Illinois.

UNIVENT (TRADE MARK)

VENTILATION



HEALTHIER SCHOOLS
—*Better Attendance Records*

THE steady, even heat provided by Heggie-Simplex Steel Boilers, keeps students comfortable at all times—minimizes their chances of catching "colds"—and assures better attendance records all through the school year.

To board members, responsible for expenses, the simpler, more modern design of Heggie-Simplex Steel Boilers means important savings in maintenance and fuel costs. These and many other equally outstanding advantages have made Heggie-Simplex Steel Boilers preferred heating units in a large and rapidly growing list of America's most modern school buildings.

Heggie-Simplex Boiler Co., Joliet, Illinois. Representatives in principal cities — telephone and address listed under "Heggie-Simplex Boiler Company."

HEGGIE-SIMPLEX

ELECTRIC-WELDED STEEL HEATING BOILERS

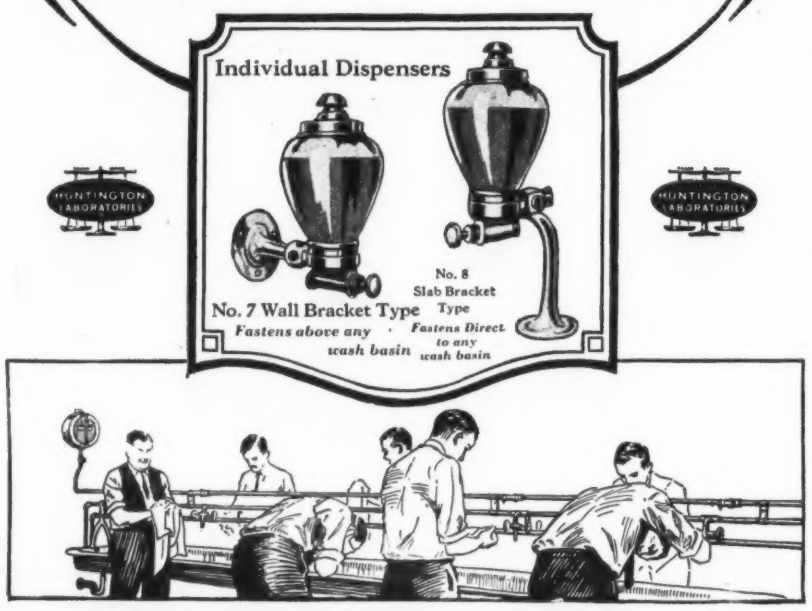
LIQUA-SAN
The Liquid Soap-

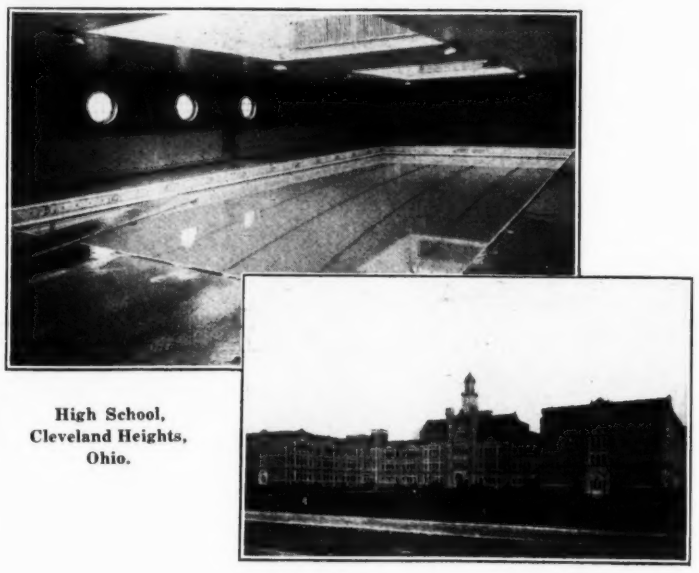
AT ONCE the cheapest and best. *Cheapest* because just a little bit goes a long way. It's highly concentrated, and guaranteed to contain 18 per cent true anhydrous soap solids.

***Best* because of its high concentration and the high quality of the soap solids themselves. Made from the finest edible cocoanut oil saponified with pure American potash, tested and controlled by our Laboratory Method of manufacture. It's mild, neutral, and soothing as a lotion. It cannot chafe the tenderest skin. Dispensers are furnished at cost to users of Liqua-San.**

Write Today for Samples and Prices

The HUNTINGTON LABORATORIES Inc
HUNTINGTON—INDIANA


Individual Dispensers
No. 7 Wall Bracket Type
Fastens above any wash basin
No. 8 Slab Bracket Type
Fastens Direct to any wash basin



High School, Cleveland Heights, Ohio.

Also at Cleveland Heights
— They "Swim in Drinking Water"

Here again we have a fine example of a modern high school and an up-to-date swimming pool, designed to make swimming an attractive part of the required physical education.

And not only has the Board of Education provided these excellent facilities but they have also fully protected the health of the students by installing a complete, reliable water purification system in connection with the swimming pool.

The pool water is continuously recirculated, filtered to remove all turbidity and suspended material, heated to maintain a constant temperature, and *sterilized* with Liquid Chlorine by means of a W&T Swimming Pool Sterilizer—thus guaranteeing that all microbes of disease are destroyed.

The Board of Education in installing a W&T Swimming Pool Sterilizer knows that process of chlorination is recommended by the American Public Health Association as being the most effective method of swimming pool sanitation because chlorination — and chlorination alone — sets up in the pool a residual sterilizing action so that every drop of water is sterilized.

We will be glad to tell you more about the outstanding schools in the United States that have installed on the swimming pools the same sterilizing apparatus that is used on over 75% of the drinking water supplied in North America.

A postal will bring technical publication No. 41.

SP-3-5

WALLACE & TIERNAN
COMPANY, INCORPORATED
Manufacturers of Chlorine Control Apparatus
NEWARK, NEW JERSEY

NEW YORK CHICAGO KNOXVILLE SAN FRANCISCO MINNEAPOLIS PITTSBURGH DALLAS
KANSAS CITY LOS ANGELES SEATTLE ST. LOUIS BUFFALO HARRISBURG INDIANAPOLIS
DETROIT WALLACE & TIERNAN, LTD., TORONTO, CANADA
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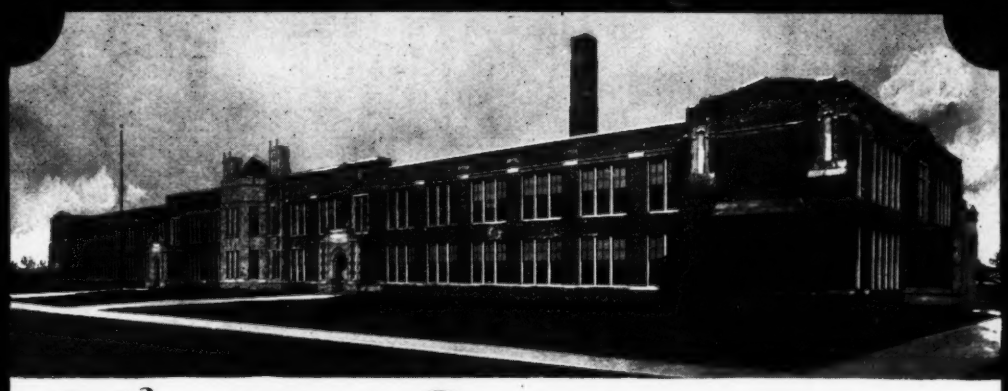

The New Boynton
Detroit's latest addition to her Public School System is equipped with
Titusville Boilers

¶ The most eloquent expressions of customer satisfaction and approval are the repeat orders that invariably follow a Tico Boiler installation.

¶ Witness, for example, the Boynton School modern in every detail, in which was originally installed a Tico smokeless boiler two years ago.

¶ A year later they decided to install an addition boiler and another Tico was chosen because of the very satisfactory service rendered by the original boiler. *Write for Bulletins.*

THE TITUSVILLE IRON WORKS COMPANY
TITUSVILLE, PENNA.

New York—152 W. 42nd Street
Chicago, Ill.—111 W. Monroe Street
Detroit, Mich.—204 Owen Building
Buffalo, N. Y.—Marine Trust Building

Sales Offices:
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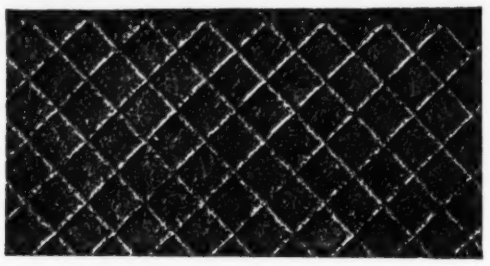
Charlotte, N. C.—705 Realty Building

Washington, D. C.—626 Woodward Building
Los Angeles, Calif.—940 Maple Avenue
Pittsburgh, Pa.—Farmers Bank Building
St. Louis, Mo.—401-2 Bank of Commerce Building

FERALUN FACTS

A few pertinent and interesting statements about Feralun Anti-Slip Treads for schools and other public buildings.



FERALUN is a matrix of special iron in which is embodied an abrasive grit next in hardness to the diamond.

+ + + + + + + + +

FERALUN is the ideal material for stair treads because it eliminates slipping and reduces stairway accidents to a minimum.

+ + + + + + + + +

FERALUN practically never wears out, so it has an economical advantage from the standpoint of durability.

+ + + + + + + + +

FERALUN treads can be used to replace any kind of walking surface in any kind of building.

+ + + + + + + + +

FERALUN treads protect school boards from lawsuits due to slipping accidents. (The law holds school officials responsible for the child's safety during school hours.)

+ + + + + + + + +

FERALUN treads are specified by prominent school architects in practically every state. National acceptance of Feralun Anti-Slip Treads is the best proof of Feralun service and efficiency in schools.

+ + + + + + + + +

DURING each school day Feralun Anti-Slip Treads are constantly and effectively safeguarding the lives of millions of children. Are your students absolutely safe on stairways?

We will be pleased to mail detailed sheets and samples of FERALUN Treads to any school official or architect upon request.

AMERICAN ABRASIVE METALS CO.

50 Church Street, New York, N. Y.

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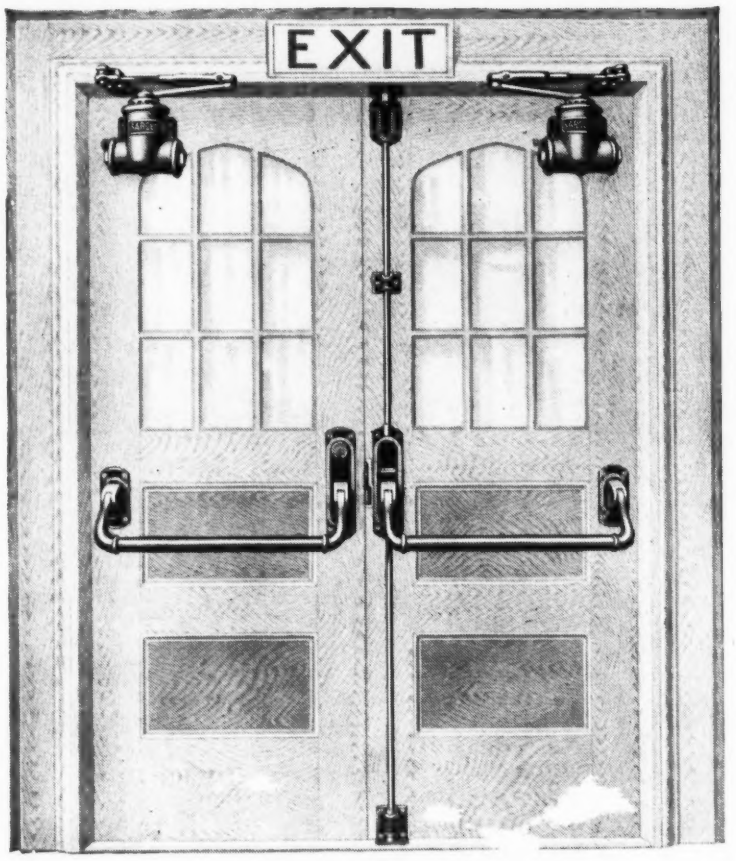
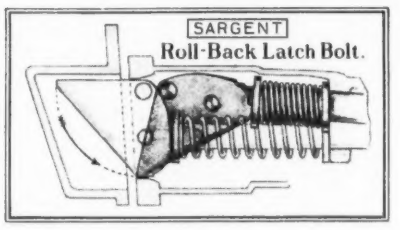
A new fire-exit latch bolt that *can't be jammed*



Not even the pressure of a panic-driven crowd can make the Sargent roll-back latch stick



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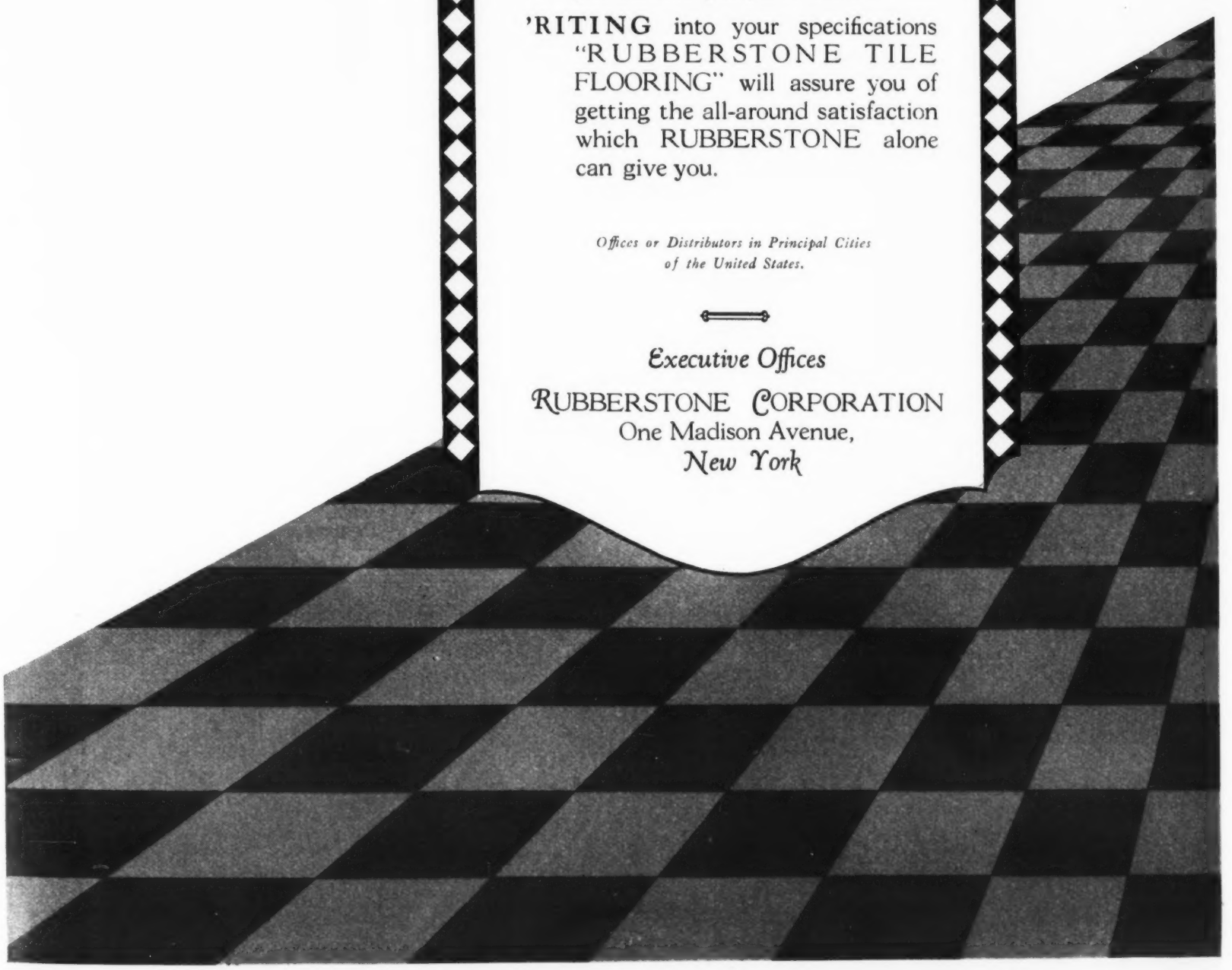

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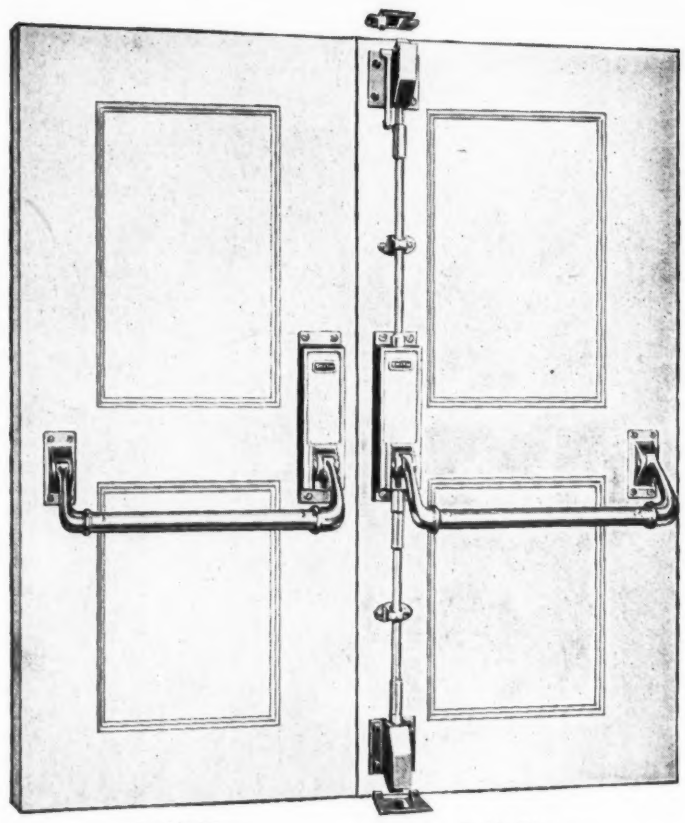

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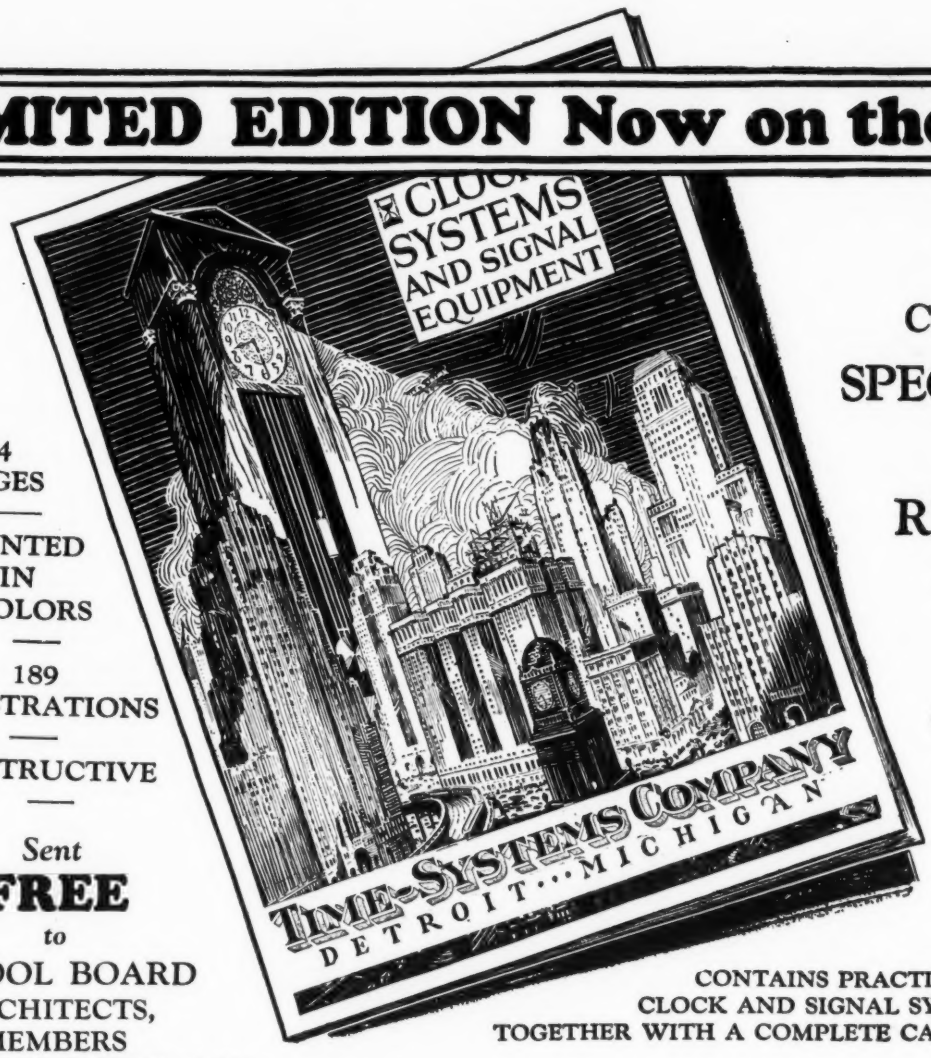

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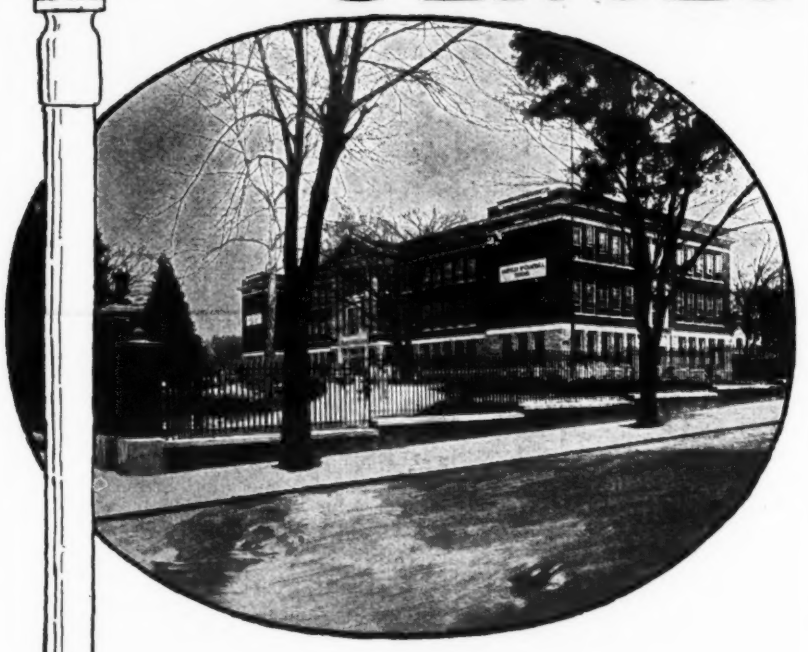

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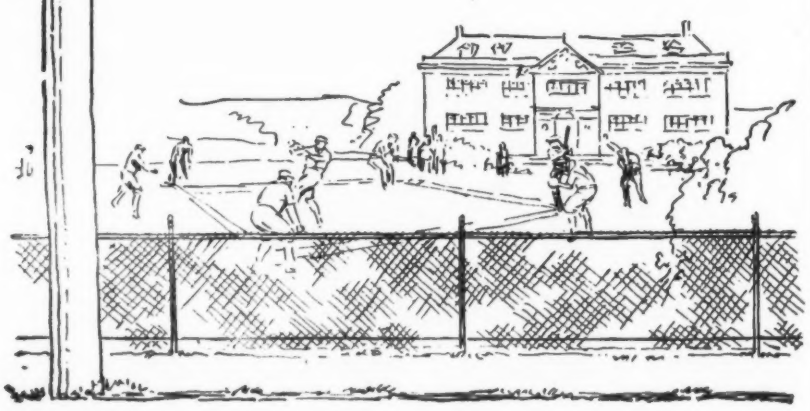

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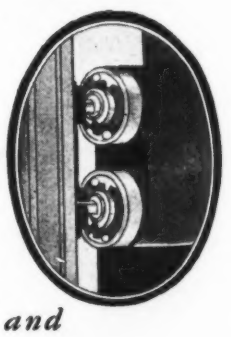

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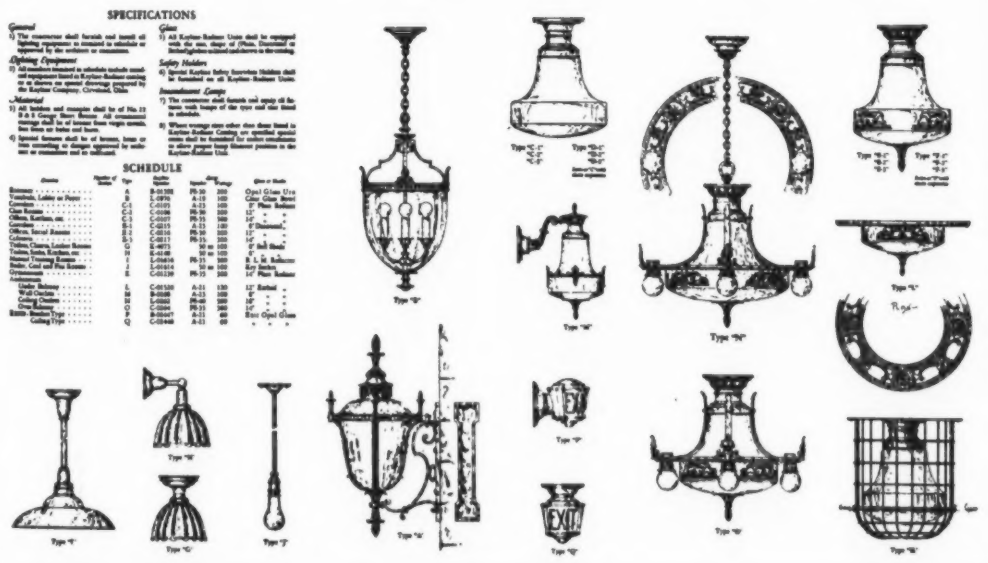

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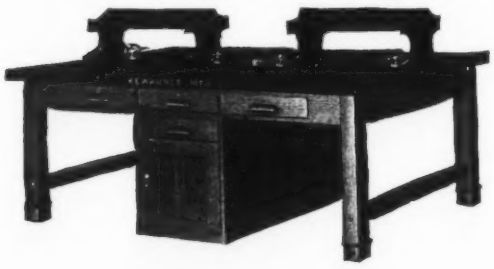

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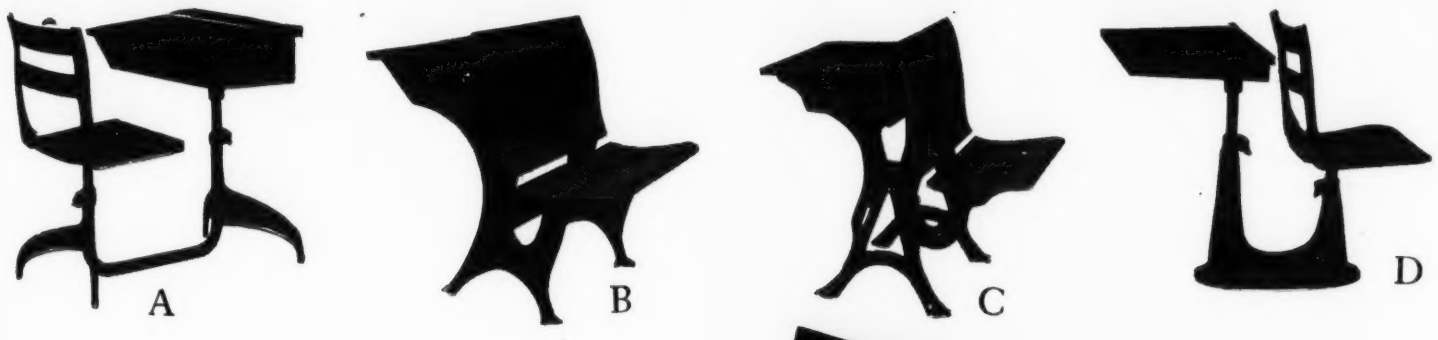

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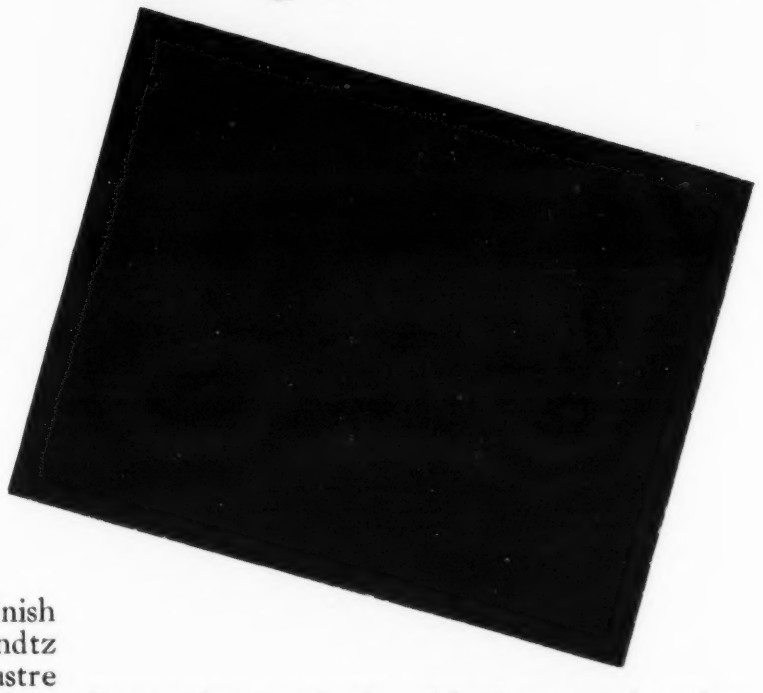

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Here are the ideal folding chairs for school use. Being entirely constructed of steel, properly reinforced where strength is needed, they will stand up for years under the bangs, smashes and misuse to which folding chairs are subjected. You have long looked for a chair that would have strength, comfort and beauty — all in one — yet one that would stow away in the least possible space. The "Viking" folding chairs have all these features without sacrificing one for the other.

Whether it be group units for an entire room or extra chairs to fill in odd places, the "Vikings" will always be ready to serve you and when not in use will stack away without any waste space and without slipping or falling.

A request from you will bring complete information on the Viking All Steel Indestructible Folding Chairs.

VIKING No. 1000
FOLDS FLAT WITHIN ONE INCH.

STURDY— RIGID — INDESTRUCTIBLE

One of the leading educators of the country, having used 2288 Viking folding chairs since 1925, and having purchased an additional number in 1927, writes us as follows: "We are very much pleased with the quality and the service that the Viking chairs have rendered us. I do not believe there is a chair on the market of equal quality and price."

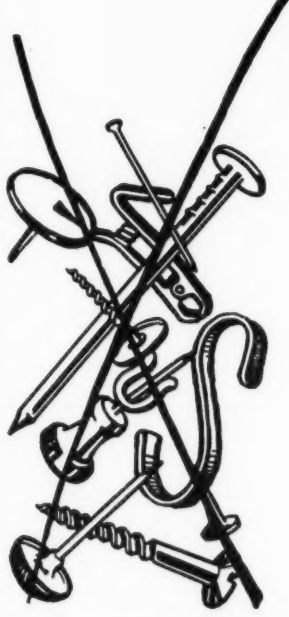
Furnished with steel and fiber or full upholstered seats.

MAPLE CITY STAMPING CO.

PEORIA, ILLINOIS

Color finishes: Olive Green, Mahogany, and Walnut.

The DAY has come ~makeshifts must go!

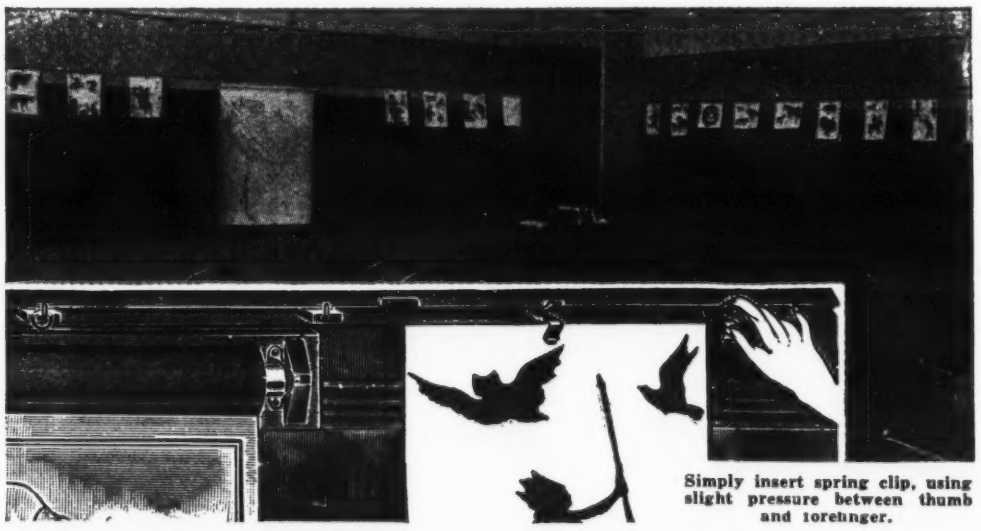


The Day Adjustable Display Rack, the modern means of hanging maps, charts, posters, and all other exhibits and materials, is winning new friends every day.

More and more are the leading schoolhouse architects specifying the installation of Day Adjustable Display Racks. They realize the fallacy of providing neat, attractive walls and mouldings only to have them quickly disfigured through the use of nails, tacks, pins, screws, and the other makeshifts so commonly used in the hanging of exhibits.

The Day Adjustable Display Rack is an attractively finished, non-rusting, Steel Rail which is nailed to the top of the blackboard moulding as shown ***at the top of this page.*** Inconspicuous and blending perfectly with any moulding, it is in keeping with the finest school interiors, and its neat fasteners (***shown in the circle***) are in sharp contrast to ugly nails and other unsightly makeshifts — No wonder school boards are turning toward the Day Adjustable Display Rack for the solution of a perplexing problem.

The hooks used with the Day Adjustable Display Rack are of two kinds—small spring clips for hanging flat sheets and sturdy hooks for supporting maps and other heavy objects. Both clips and hooks may be fixed at any position along the rack and removed with one hand in a second. They cannot wear out.



Simply insert spring clip, using slight pressure between thumb and forefinger.

1. NEAT—does away forever with unsightly nails and hooks—protects walls and mouldings from holes and scratches—cannot mar exhibits.

2. SIMPLE— easier than using a thumbtack — your thumb and forefinger do the trick in a second.

3. EFFICIENT—holds firmly for a minute or a year. You can place exhibits on any wall as close or as far apart as you wish. Holds single flat sheets or heavy maps with equal ease.

4. SAFE—you cannot pound, scratch or cut your fingers while hanging exhibits or maps, and no dangerous hooks or nails remain when exhibits are removed.

5. STRONG—Scientifically designed to last a lifetime. Easily holds the heaviest maps — as many as you want.

6. LOW IN COST—bought by the foot, there is no waste. Fasteners are inexpensive and do not wear out.

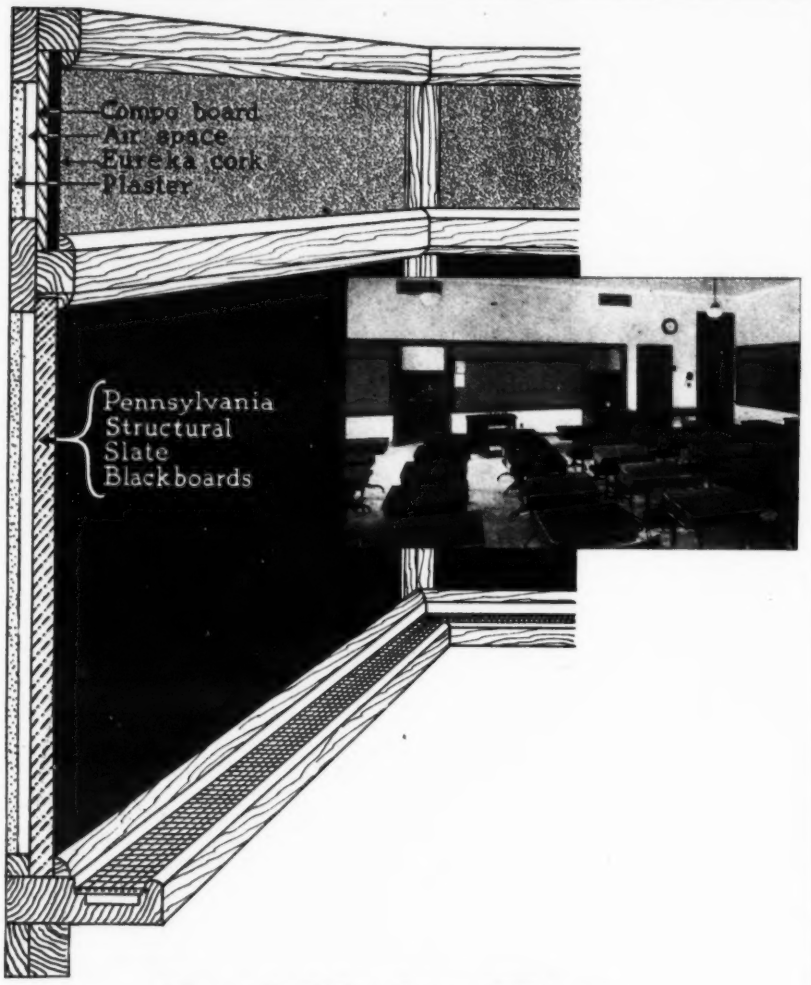
The Day Adjustable Display Rack is carried in stock by School Supply Distributors throughout the United States and Canada.

Working models and detailed specifications (AIA file No. 19e3-5) of The Day Adjustable Display Rack will be sent to interested architects and school executives on request.

J. L. Hammett Company

380 JELLIFF AVENUE
NEWARK, N. J.

KENDALL SQUARE
CAMBRIDGE, MASS.



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BULLETIN BOARDS

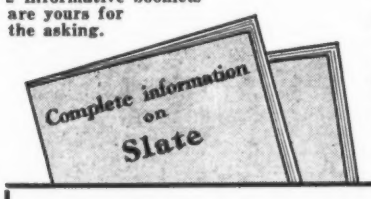
Eureka Cork Bulletin Boards and Tacking Strips keep their resiliency and life indefinitely. *They have never been known* to need replacement or repair. If this is the sort of cork you are seeking for your new school, consult us.

Pennsylvania

Structural Slate Company

First National Bank Bldg. Easton, Penna.

2 informative booklets are yours for the asking.



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☐ Please quote on.....square feet of Pennsylvania Structural Slate Blackboards, delivered to address below.

☐ Please quote on.....square feet of Eureka Cork Bulletin Board, delivered to address below.

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"The Furniture Capital of the World"

GUNN Furniture is made by experienced craftsmen who have made furniture building their life's vocation. This insures highest quality of construction, cabinet work and finish.

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Our Patented Self-adjusting Device permits adjustment of top at any angle by simply raising top to height desired. When top is raised to vertical position the adjustment ratchet is automatically released and top returns to flat position.

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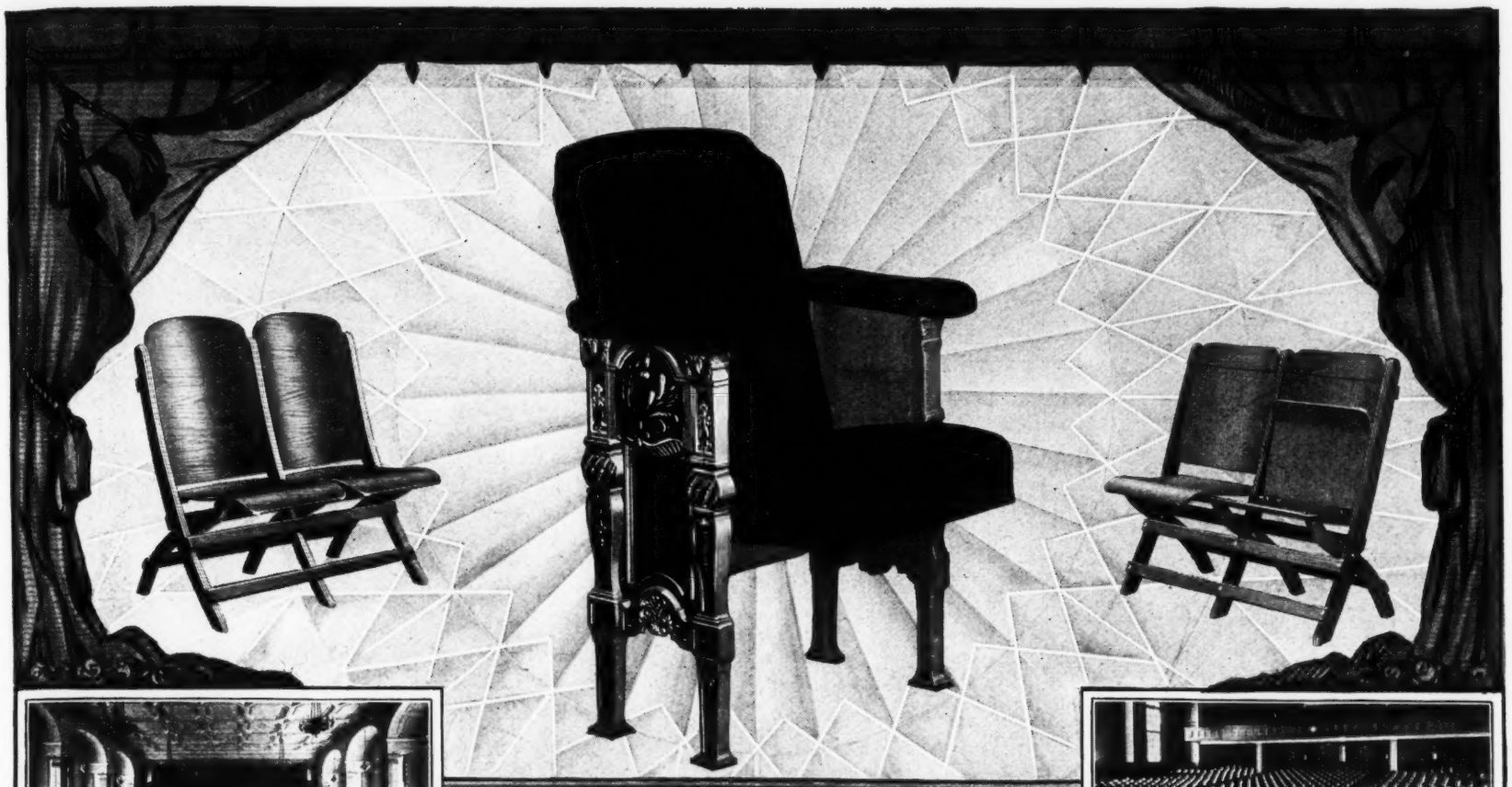
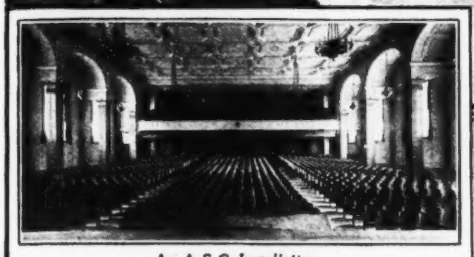
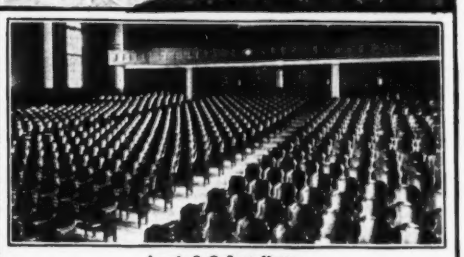
THE GUNN FURNITURE CO.
Grand Rapids, Michigan

Thirty Years Builders of Office Desks and Tables





An A. S. C. Installation
Auditorium, Jamaica High School, Jamaica, N. Y.
Wm. H. Gompert, *Architect*



An A. S. C. Installation
Auditorium, Frank H. Morrell High School, Irvington, N. J.
Donn Barber, *Architect*

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"American" Superiority is Acknowledged

IN auditorium seating . . . as in *all* school seating, school men the country over acclaim the superiority of the A. S. C. product. Without sacrificing sturdiness and hygienic perfection, buyers are assured a beauty of finish and design . . . an artistic execution in every detail that lends character and individuality to the auditorium. With a diversity of models to fit both limited and liberal budgets . . . an ample stock is always available. 53 strategically located warehouses serve to meet any emergency.

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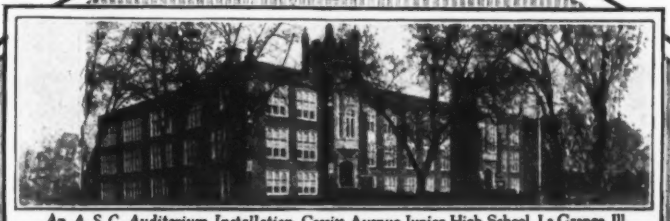
An A. S. C. Auditorium Installation
Frank H. Morrell High School, Irvington, N. J.
Donn Barber, *Architect*

"STEEL DESKS ASC ARE BEST!"



An A. S. C. Auditorium Installation, Cossitt Avenue Junior High School, La Grange, Ill.
Childs & Smith, *Architects*

An A. S. C. Auditorium Installation
Jamaica High School, Jamaica, N. Y.
Wm. H. Gompert, *Architect*

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Automatic Adjustable Steel Stools and Chairs for Laboratory, Art, Drafting, and many other purposes.

THE AUTOMATIC ADJUSTMENT AND THE INDESTRUCTIBLE STEEL CONSTRUCTION HAS SOLVED THE SEATING PROBLEM IN THESE INSTITUTIONS, BESIDES SAVING A LOT OF MONEY.

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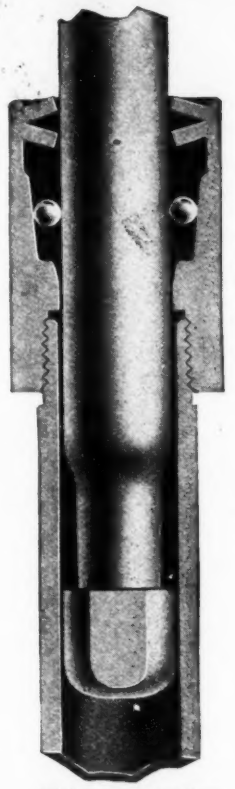

This illustration shows the locking mechanism of the Ever-Hold Automatic Stool, patented March 16, 1926.

VITEK MANUFACTURING CO., OMAHA, NEB., U. S. A.

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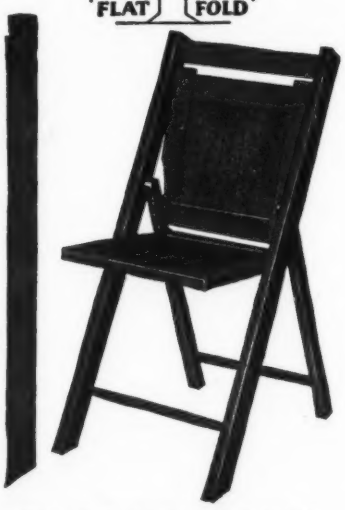


No. 44 Swinging Slat Back

Many features developed throughout our years of experience as Folding Chair manufacturers have been incorporated in this model. It folds perfectly flat, is nontipping and will nobly stand up under severe use.

That is one of the main qualifications of the No. 44 Standard Folding Chair. As shown in the illustration to the left it folds perfectly flat. Thus quite a number of chairs can be stacked where previously there were only a few. The resultant economy of space makes it advisable to buy chairs that stack flat.

However, if you desire a chair of finer appearance there is the No. 90 Folding Chair. These chairs can be used any place at any occasion and will enhance the appearance of the room wherever they are used. Although this model does not fold flat it stacks very compactly.

Besides these two there are twelve other distinctive styles of Standard Folding Chairs each answering its purpose nobly whatever the need it is put to.

We are anxious to send fully illustrated literature. Please write.

No. 90 5-Ply Veneer

The folding chair shown above is the pride of the Standard Line. It is very comfortable, strong, neat in appearance and folds very compact. The most critical buyer will find that the construction meets his strictest requirements.

STANDARD MANUFACTURING COMPANY

Cambridge City, 1020 S. Foote St. Indiana, U. S. A.

—Here's the Desk

Where Fixed Seating is Required

The demand now, where fixed seating is required, is for a single pedestal desk.

We have met this demand most admirably and successfully, everyone admits, with this

New National Pedestal Desk

REGULAR PEDESTAL DESK.

The same desk equipped with the Moeser Extended Arm.

The Moeser Extended Arm Rest

Is a wonderful improvement. The back is supported; pupils have adequate writing space with proper arm support; they look straight forward, without twisting—the posture is comfortable, convenient, and healthful.

It has the Universal adjustment, that is, vertical and horizontal in ONE operation. To adjust it, merely loosen the set bolt and raise or lower the desk to the height desired. There is no "play" in the joint when locked.

The seat and back are shaped to conform hygienically to the human figure, and afford the maximum amount of comfort.

It is easy to keep clean. There are no grooves, channels or openings where dust can collect.

The large base insures permanent fastening to the floor.

The attachment surfaces for top and seat are also larger than those used on other single pedestal desks.

The wood parts used are all made from selected birch, thoroughly seasoned and kiln dried. Seat brackets are of unbreakable malleable steel.

We manufacture desks of many designs. Send for our complete Catalog.

THE NATIONAL SCHOOL EQUIPMENT CO.
Manufacturers of Complete School Equipment
PORT WASHINGTON, WIS.

"National" Pedestal Lecture or Recitation Room Seats, equipped with Tablet Arm — High School, Kenosha, Wis.

"National" Adjustable Pedestal Desks — English Room, Kenosha, Wis., High School.

NATIONAL School DESKS
"Famous for Comfort"

COLUMBIA-SANI-STEEL-INDESTRUCTO

STANDARD INDESTRUCTO ADJUSTABLE MOVABLE DESK

Seat of standard scroll either plywood or solid at same price. Saddled seat will be furnished on request. Top of standard rectangular pattern with flush top inkwell as shown in sizes 0 to 4. Top is adjustable in height, in tilt, and has an adjustable leveling device. Wood parts are of hard maple, walnut finish. (Oak will be furnished on request.) Seven plywood top, for 20c additional. The steel parts are dark olive green. The feet are shod with gliding domes, or upon request will be equipped with floor fastenings. Steel book box as shown.

No. 330-1 and 2 @ **$5.30**; No. 333 and 4 @ **$5.15**; No. 334 and 5 @ **$4.90.**

With Plywood Seat

COLUMBIA INDESTRUCTO TABLET ARM CHAIR

No. 420

Above is an illustration of the Columbia Indestructo Tablet Arm Chair. The frame is of steel, arc welded to prevent breakage, and is finished in olive green. Back slats are of quartered oak, while the seat and arm are of plain oak or maple. Price of each $4.25; with perforated shelf $.25 extra.

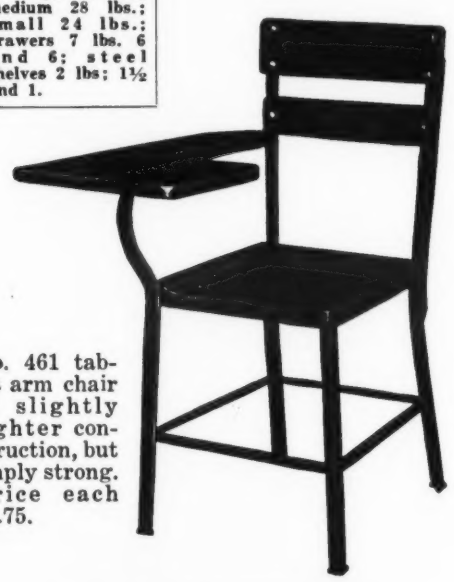
ADJUSTABLE MOVABLE DESK THE COLUMBIA INDESTRUCTO

The top is adjustable in height, in tilt, and has a leveling adjustment not possessed by any other desk. The position of the quartered oak back slats are also adjustable.

Wood parts are of oak, finished dark golden, while the steel frames are finished olive green. These desks may be assembled more quickly and more easily than the combination desks.

No. 400-1 and 2, $4.95; No. 403 and 404, $4.80; No. 405 and 6, $4.65; B Drawer, $1.00. Inkwells with steel swinging holders **$0.15** Back panel above bookshelf..... **.20**

Shipping Weights — Large 34 lbs.; medium 28 lbs.; small 24 lbs.; drawers 7 lbs. 6 and 6; steel shelves 2 lbs; 1½ and 1.



No. 461 tablet arm chair of slightly lighter construction, but amply strong. Price each $3.75.

SANI-STEEL INSTRUCTOR'S DESKS

This desk may be had with two drawers at $13.00; four drawers at $17.00; with five drawers at $19.50. It has a steel frame and body that is finished dark olive green. The top and drawers of five-ply built up quartered oak, finished dark golden.

No. 450 TEACHERS' CHAIR

Can be used for Teachers, Visitors, Cafeteria, or the Library. Oak seat and quartered oak back are finished dark golden or brown. Has an olive brown steel frame. Priced at $2.85 each.

COLUMBIA INDESTRUCTO KINDERGARTEN CHAIR

Sturdily constructed with a saddled oak seat and curved quartered oak back and a solid steel frame. Made in three sizes. One dozen weigh 110 lbs. and are priced at $16.00. Also the Elementary Tablet Arm Chair at $21.00 per doz.

No. 65 STEEL BOOK CASE WITH DOORS

Impervious to rats, mice or other vermin as well as fireproof. It will keep your libraries in good condition during vacation months as well as during the school term. The shelves are of wood, for better surface for the books, and are adjustable.

Dimensions: 12 in. deep by 40 in. wide by 55 in. high, each.....**$30.00**

COLUMBIA SCHOOL SUPPLY COMPANY,
INDIANAPOLIS, INDIANA.

From May 1st to Sept. 10th, 1928.

We have received orders from the following cities and towns. Several separate orders from some of them. Most of our orders come from those who h ave bought Indestructos before.

From May 1st, 1927, to April 30th, 1928, we received orders from 1010 cities and towns; send for list of users and illustrated catalogue.

Satisfied, repeating customers are our greatest asset.

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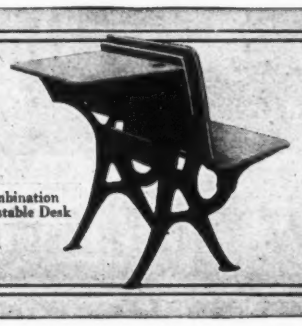

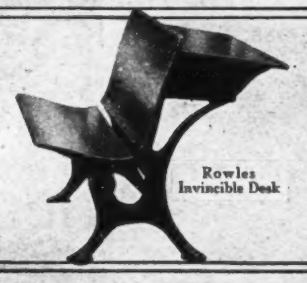

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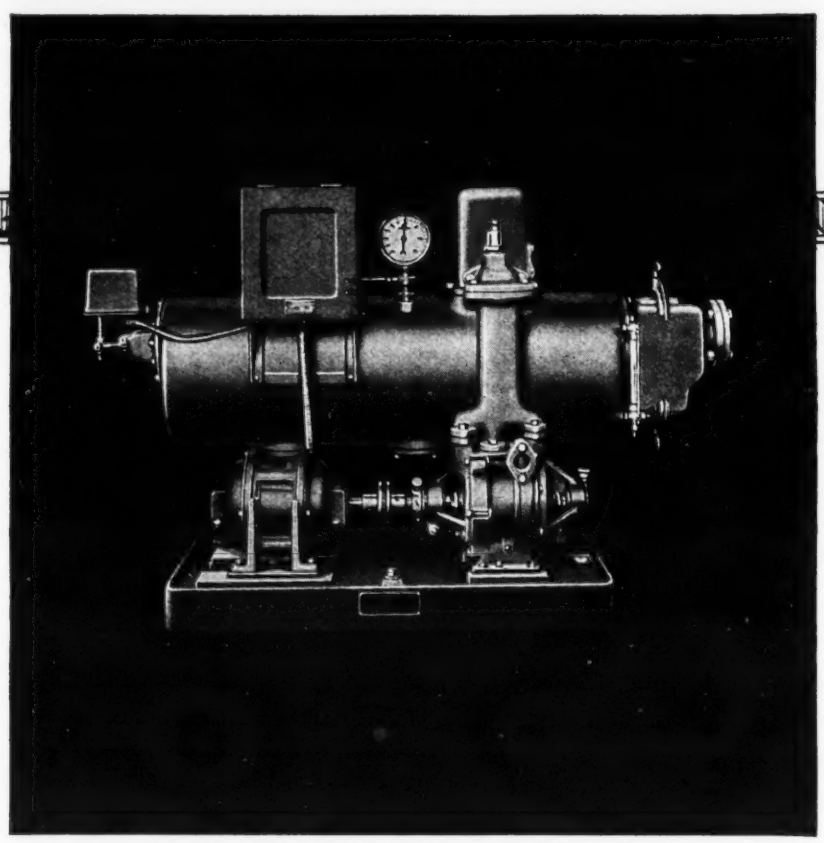

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Have Cartoons Any Value?

In the current literature of the day, space is given to the cartoon. Artists are employed to express a thought, a cause, or a situation in picture form. A cartoon that must be studied in order to decipher its meaning is a failure. The art of the cartoonist is to present his theme so graphically, tersely, and completely as to disclose its meaning at a glance.

For thirty-five years the SCHOOL BOARD JOURNAL has employed cartoons as a means of picturing situations and problems in the school life of the nation. These cartoons have done much to bring to the attention of the school public, certain phases in administrative service of importance to them.

"I wish to say how much your cartoons in the SCHOOL BOARD JOURNAL are appreciated," writes Principal Louise Barrett, of the Witlin School, Brainerd, Minn. "One of my teachers has enlarged several of them to poster size—to adorn our halls and bring a lesson to our pupils."

In one instance, one of our cartoons which dealt with a pupil problem prompted requests that aggregated 'way over 35,000 copies. Some of those dealing with the relations of school boards and superintendents, teachers, and parents, etc., have excited popular interest, and have in the main, served the cause of efficient school administration.

An eastern magazine writer, in commenting upon the cartoon service of the SCHOOL BOARD JOURNAL, took occasion to say that they conform with the highest conceptions of that art, and that, on the whole, they have done much to make clear situations, which in the minds of some school officials, would otherwise have remained unexplained.

—THE EDITOR.

Our Cover

Many older members of our school boards and superintendents will remember a Rogers Group, which held a place of honor in the parlor of their boyhood home. No sculptor in American history has contributed so much to the life and art of his day as did John Rogers between 1860 and 1885. Every Rogers Group told a realistic story of some phase of the simple life of the period. The groups were usually artistic, and fitted in ideally with the haircloth sofas and the other Victorian furniture of the day.

The cover of this issue of the JOURNAL is taken from one of Rogers' favorite groups, widely known. It represents a typical country school teacher of the middle of the last century and a "big girl" pupil. Like the Rogers Groups, the young man who used the country school as a stepping stone to a professional career has almost entirely disappeared, but the one-room country school in many sections has not changed materially.

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Discontinuance—Notice of discontinuance of subscriptions must reach the Publication office in Milwaukee, at least fifteen days before date of expiration. Notice of changes of address should invariably include the old as well as the new address. Complaints of nonreceipt of subscribers' copies cannot be honored unless made within fifteen days after date of issue.

Editorial Material—Manuscripts and photographs bearing on school administration, superintendence, school architecture, and related topics are solicited, and will be paid for upon publication. Contributions should be mailed to Milwaukee direct, and should be accompanied by stamps for return, if unavailable. Open letters to the editor must in all cases contain the name and address of the writer, not necessarily for publication, but as evidence of good faith.

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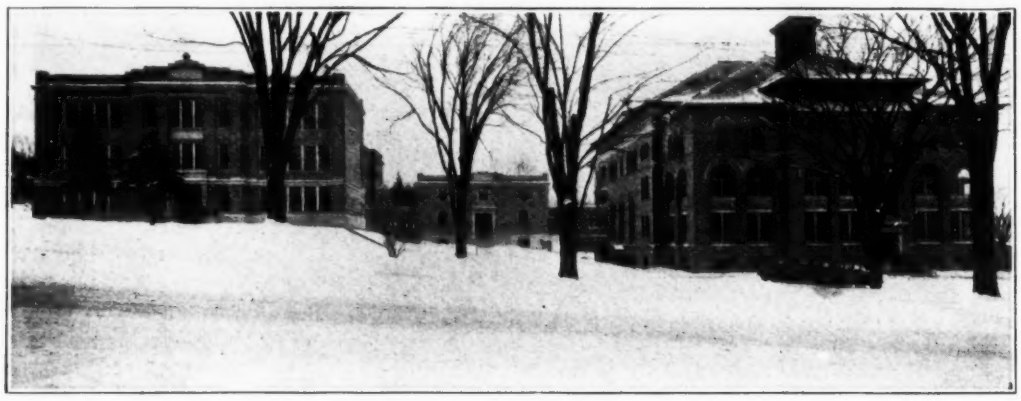

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THE AMERICAN

School Board Journal

Founded March, 1891, by WILLIAM GEORGE BRUCE

Volume LXXVII, No. 4 | OCTOBER, 1928 | Subscription, $3.00 the Year

SCHOOL BOARD
EXPERIENCED MEMBER
DON'T START ANYTHING UNTIL YOU KNOW YOUR JOB- WHAT HAS BEEN DONE AND WHY-
"JUMP RIGHT IN"
"SHOW 'EM HOW TO DO IT"
"WE'RE WATCHING YOU"
"YOU'RE FULL OF IDEAS"
THE FLATTERING VOTES OF ADMIRING FRIENDS-
NEWLY ELECTED MEMBER
PLANS FOR RADICAL REFORM IN SCHOOL ADMINISTRATION
DON'T SAY A WORD 'TIL YOUR HEAD FITS YOUR HAT AGAIN!
WISDOM
Harold Heaton
AMERICAN SCHOOL BOARD JOURNAL

The Peril of the "New Broom"

The Story of a School Fight

Carl N. Taylor, State University of New Mexico

School superintendents are paid higher salaries than teachers. Presumably they are expected to be specially qualified by training or experience to handle administrative problems. Yet one of the most common sources of school trouble in small towns is the tendency of school boards to nullify attempts on the part of the superintendent to perform the duties of an administrator. After paying high wages for a skilled executive, they deny him the right to do many of the things for which they have hired him. And when this situation exists, serious trouble is almost certain to follow.

To the student of education, it seems as absurd to employ a trained administrator and then deny him the right to direct school policy, as it would be, in a case of illness, to consult a specialist only to apply the remedies of a quack. And it is difficult to see why so many school boards composed, not of students of education, but of solid, level-headed, successful citizens, should do so unwise a thing.

The fault lies, usually, in a general misconception of the duties of school-board members, rather than any pernicious intention upon their part. Nothing is further from the thoughts of the average school director than the idea of hampering the school. He takes his job seriously —too seriously; therein lies the difficulty. He has been elected to serve his community as a member of the school board; that means to him that he is expected to take an active part in handling the internal affairs of the school.

It is incredible to him that his participation in local educational affairs should be limited to the making of general policies, to finance, and to the consideration and approval, or disapproval, of matters initiated or at least recommended by the superintendent. And the moment the superintendent begins to show that he is actually the chief school executive, this type of board member begins to feel that he has been done an injustice. He forgets that he is a dry-goods merchant or a farmer and insists that he is a school administrator.

Unless both men concerned have a great deal of tact, trouble usually begins at this point. More often than not it is serious trouble. In direct ratio to the self-assertiveness and aggressiveness of the superintendent on the one hand, and the stubbornness and sense of civic duty of the board member on the other, there is hardly any limit to which the trouble may not go. And once a school fight is started, it is difficult to keep out the even more pernicious elements of local political and religious controversy.

Confusion of the functions of board members and administrators has long been a thorn in the side of American education. It has almost disappeared in the larger cities, and in a few of the older states it has been greatly reduced. But in the newer states, and particularly in the smaller communities of these states, it still remains one of the most serious of educational problems. As a rule, the smaller the community, and the more isolated it is, the more likely it is to have school trouble from this source.

A school fight which came to a head in a prosperous farming community of a southwestern state this year, well illustrates the difficulties which may arise when school boards take over the duties of administrators. I shall summarize briefly the situation as it occurred; the names of the participants are fictitious, but otherwise the account is a true narrative of the events as they occurred.

For several years the public schools of this town (which for the purposes of this article I shall call Zanthor) had been in the hands of a superintendent who lived in Zanthor, and who was more interested in politics than in education. There had been a growing sentiment against him, but by skillful maneuvering he had kept his job. In the meantime his administration of school affairs had become more and more lax. He kept practically no records; he made no attempt to enforce attendance; and he became very popular with the students because he paid little attention to discipline.

Finally, just before the end of the 1926-27 school year, this superintendent received a local political appointment and resigned. The school board had placed the hiring of teachers in the hands of a committee of three, dominated by two members, local politicians, and friends of the retiring superintendent, who always voted alike. They employed one, Gray, to serve the remainder of the term.

Gray was in business in Zanthor, and active in politics. His wife was a teacher in the high school, and had been for several years. It was a common understanding that both received their appointments as a reward for political services rendered by Gray, . . . services which were, by the way, of more or less questionable nature.

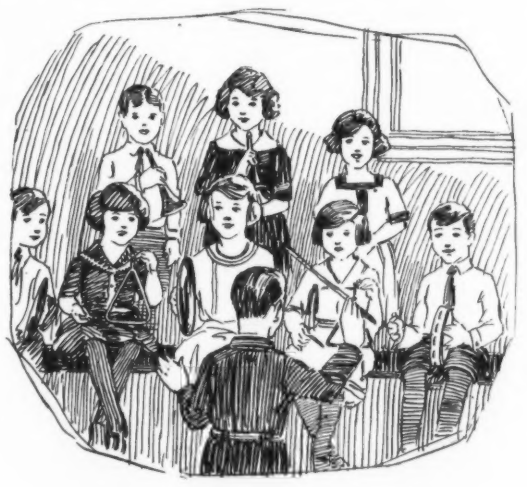
A move was made by the board to elect Gray as the superintendent for the following year; but here the members ran afoul of public opinion and were forced to give up the scheme. Mrs. Gray was reelected as a teacher, although there was a great deal of opposition to her by a large number of the townspeople.

Blocked in its plan to play politics, the hiring committee appointed as superintendent a man named Brown. He was a competent administrator, with a long record in an eastern city; he had been forced to move to the Southwest on account of ill health. After hiring him, the board settled down to await developments.

One of the two board members who were friendly to Gray made the remark on the day before the opening of school that Brown was due to have trouble. He intimated that Brown migt be forced to leave before the school year ended, and hinted that Gray was the man for the place.

Difficulties began during the first day of school. On that day Mrs. Gray was heard to advise her class to refuse to carry out the new superintendent's instructions in regard to a certain rule which he had established. From that time onward there was a lining up of forces and more or less open hostility.

Several new teachers had been employed. Of these, all except a man named Davis, were loyal to Superintendent Brown; this man allied himself with the faction which was governed by the Grays. About half of the old teachers supported the new administration.



It is not hard to see that Brown was facing a difficult situation. He was a new man, a stranger. His faculty was divided. The students were unaccustomed to discipline. Clearly he needed the whole-hearted support of the school board and authority to work as he saw fit.

But the support which he received from the board was negligible. Two of the members were openly unfriendly. Two were friendly and anxious to see the schools prosper, but were hesitant about giving up their traditional privilege of participation in the school administration. A fifth member agreed with most of Brown's policies, but he was in business and unwilling to do anything that might alienate any of his customers.

Almost from the first, the directors met without Brown's presence. Although he requested that he be permitted to attend the meetings and to have a voice in the discussion of school affairs, this privilege was denied him. He was summoned only when the board felt that it needed information from him.

No serious trouble arose until the end of the first six weeks' period. It happened that Mrs. Gray and Davis were rather lenient in their grading; some of the new teachers were more exacting. A number of the pupils and several of the patrons visited the various board members to protest the low grades given by these teachers. They mentioned the fact that Brown had refused to overrule teachers' grades, as the former superintendent was said to have done. These people were encouraged by the minority group of the directors, and they were not discouraged by the others. Without avail, Brown suggested to the board that matters like grades are internal problems which should be handled by the superintendent.

From that day forward, disgruntled parents came to the school board with their complaints. The opinion of the community was about equally divided; those who were friendly to Brown took their grievances to the board members who were favorable to him, and those who were against him consulted with the other directors. But in all cases the results were the same; . . . the board members listened to the complaints and proceeded to give advice upon them, instead of referring the complainants to Brown.

Both Gray and the former superintendent took part in the discussion. Delegations of students, finding the former superintendent anxious to give advice, consulted with him frequently upon questions which should have been settled by Brown.

On one occasion, a group of seniors, dissatisfied by a decision which Brown had made regarding the annual class play, left school during recitation periods to lay the question before the ex-superintendent. But when Brown suspended them for leaving school without permission, they were upheld by the majority of the directors. The effect of such action upon the discipline and morale of the school is readily apparent.

A local minister was dissatisfied by his daughter's grade in an English course. Brown informed him that he would not overrule the grade given by the teacher. Thereupon the minister, upon the advice of a board member, circulated a petition asking the dismissal of Brown. In its initial stages, this question was wholly outside the province of the school directors. It should have been thrashed out by the parent, the teacher, and the superintendent. Yet one board member saw fit to take a hand in it; and the board as a whole made no effort to discourage the circulation of the petition.

As the time for the reelection of teachers approached, the directors found their time monopolized by persons who came to urge the retention or dismissal of one teacher or another. It developed that there was not a single mem-

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Graduating from Grub Street

Harlan C. Hines, Professor of Education, University of Cincinnati

In the foregoing articles[1] of this series I may seem to have spoken of the "strong young man so much needed in teaching" as having passed forever from among us. But I do not wish to let that impression stand. To use the words of James Whitcomb Riley, "he is not dead, he is just away." Somewhere, outside the corporate limits of our professonal area, he is walking heavily, sometimes stumblingly, over the rough earth of commerce or through the thickets of industry. Whether or not he is to be allowed to stay out there depends upon a number of things. But, by way of emphasis, may I mention again the two bars we have erected against his success in teaching? They are: (1) the necessity for being inventive on an empty stomach; and (2) the necessity, under pressure from professional hotspurs, for stimulating scientific service.

If one is to attain success, I know of no occupation that calls for more ingenuity than does teaching; nor, considering the amount of mental energy expended, do I know of any in which the material rewards are so disproportionately low. But enough has been said about the salary situation to show the critical analyst, at least, that, if we are to save for the profession the men who might give it the best of service and the greatest amount of prestige, we shall have to somehow jar loose a competency for them.

Propaganda Methods in Question

Now, I do not wish to imply that boards of education and school trustees have done nothing worth while in the matter of salary adjustments, although in far too few cases has action come voluntarily. They have, in instances, when aroused by the previously planned propaganda of pedagogical publicists, done more than the man in the street has felt was necessary, urgent, or equitable. But they have left much to be desired, especially in the methods with which their beneficences have been bestowed. If we may judge by the examples we have before us, it is next to impossible for a board of education to raise the salaries of teachers without first making it very plain to the public just what a poor worm the teacher is and just what a short distance it is from his present position to the county farm. And this may seem an unusual way to put it, but I believe all this public agitation for increases for teachers has done more to harm the profession than it has to help it, particularly in light of our efforts to enlist the right sort of young men. No young man who regards himself as a potential leader is likely to be attracted to a type of work that everybody knows is so poorly rewarded that it falls just outside of community-chest activities. The star to which he will hitch his wagon, although at times seemingly too effulgent with the russet burnishing of gold, holds the promise of a home of his own, an unquestionable place in his social world, and provision for old age. If we are to get him in, may I suggest as the first constructive principle that some way be found to increase salaries without public acclaim of the teacher's poverty. Let him at least share the dignity that is permitted policemen, firemen, and other city employees.

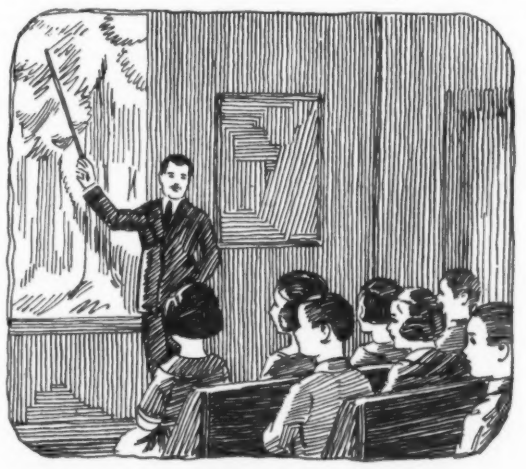
Researching Education to Death

I may seem also, in previous discussions, to have been a little hard upon the "science" of education, and, although it is not my purpose here to retract anything I have said, a few words of elaboration may help to clear up the meaning of certain accusations. I recall that a few years ago, having made an informal talk on measurements before a group of schoolmen, I was quoted in the school paper as having spoken of the pioneers in measurements in harsh terms. Nothing could have been further from the truth, but the unfortunate misquotation was carried in metropolitan papers the country over, and it taught me a big lesson: either keep still or go to extremes in clarifying any, even semipublic, statement.

So, if there is anybody who, because he read what I had to say about the "science" of education has become pessimistic or morose, let him now be of good cheer. For I am about to say that the "science" of education is not, in and of itself, to blame for the predicament into which the schools have been thrown, but rather it is the superficial manner in which its multifarious branches have been employed. As President Butler has pointed out, so much of the work that passes under the name of scientific research is nothing but a collection of existing authoritative viewpoints; and, under scientific research in education, it may be added, we have this type of activity carried to the *nth* degree. In our teacher-training colleges during the past few years, so many researches have been conducted and their results made public that an experienced superintendent no longer knows on which side to part his hair (if any), and a young teacher, busy with the task of learning to become a good instructor, is so far behind in scientific information that he himself is likely at any time to become a subject for investigation. In fact, these cannot keep up on the books in education, to say nothing of the latest experiments.

All of this is said in good faith. If allowed to express themselves, a majority of the men engaged in educational work would probably agree with it. They have been swamped by new discoveries in method and new theories in child training, and no sooner have they felt themselves faintly familiar with testing, for instance, than they must try to assimilate the *gestalt* theory of learning. If they should suddenly rise up in their seats and ask, What does it all matter? they would be immediately classified as nitwits and their places taken by experts being graduated from the teachers' college then most in favor. As a result, they keep still about it, pretend to knowledge they do not have, and go right on trying to do the best they can to make the nation's children a little more acceptable in polite society.

There is one school of education in which this situation seems to have been sensed. In it two years' work is now required for its master's degree, and it proposes that its graduates shall become not only specialists in the teaching art but general-ists in their grasp of educational trends. Its instructors have fallen into habits of reserve, so that a single investigation may go on there for ten years before its results are brought forward as a solution to some vexing problem. For these things it will be subject to attacks of aspersion and to a damning with faint praise, but it is likely to get nearer to its stated goal than most of the training colleges now in existence.



The cause for most of our wild scrambles for new and unusual theories does not lie behind the state laws for certification. They (the state laws) have demanded usually a small number of pedagogical courses designed to show the prospective teacher how to succeed in the classroom. It lies, rather, on the ample bosom of teacher-college ambition, and this is best expressed by the optimism with which these training centers embrace new courses and proposed reorganizations. Perhaps this attitude is necessary, in view of the fact that only so long as they keep up steam in the old calliope will students be attracted to the big circus. But, in their very optimism, they are often led into inclusion of courses and into advancement of theories which, in actual value to the teacher in training, are worth less than a set of summer furs. (At this point I wish I might be specific; but I do not wish to be unkind; and then, too, I might be wrong.)

When briefly summarized, this is to say that if we want to attract the right sort of young men into teaching we shall have to so strengthen the beginning courses in our professional colleges that young men, enrolled in them for exploratory purposes, will not be driven out by sheer monotony. Then, through the elimination of a lot of folderol that passes under the name of professional training, we, under the guidance of local needs and state laws, shall have to narrow down the required courses to minimum essentials, and give more time to these. And, in order that we may know just what courses to offer, the validity of educational theories should be determined by representative administrators and teachers in conjunction with college teachers of education, rather than by the last named working alone.

College Graduation Essential

Gradually we are headed toward the day when no person who is not a college graduate will be permitted to teach in a public school. We know, of course, that college graduation in no sense guarantees teaching ability, but it does promise an ungraded quality of maturity that the beginning teacher sorely needs. And, although the Harvard plan of requiring college graduation before professional study is undertaken has its distinct advantages, it may hardly be recommended yet as a fixed point of departure for all teacher-training institutions. One can easily see what this would do to the normal schools, many of which have been so materially improved by passing to the four-year program, and I am sure it would do nothing at this time to attract young men to teaching. Colleges of law, medicine, dentistry, etc., may require as many as six years of professional training and lose no appreciable amount of drawing power; but the returns from such long-time investment are so much more likely to be profitable than they are in teaching that the plan adopted by colleges of education, in providing four years of undergraduate work, or of schools of education, in providing two years of undergraduate work in addition to two years in liberal arts, seem more logical at the present time. We may recommend, however, that, as it can be worked out and in order to equalize competition and inculcate professional pride, *no person be employed to teach who has not been graduated from a four-year college.*

[1] *Let the Cry for Men be Articulate* in the May, 1928, issue, and *Pedagogical Palliatives* in the July, 1928, issue of the AMERICAN SCHOOL BOARD JOURNAL.

And, while we are on the subject of professional training, attention should be invited to the status of so-called teachers' courses offered by professors of academic subjects. Teachers' colleges gradually have been taking over these courses because, as Professor Bagley has put it, teachers of academic subjects have refused to adjust their courses to the needs of the lower-school teachers. This is a mild accusation. To most professors of education, such courses have been emblazoned targets for years and many hard words have been said about them. But the fact remains that the value of these courses depends entirely upon the instructors giving them, so that we find some very good, others very poor. And, although all of them might be improved, it is hardly a divine mission of the teachers' college (unless we except the four-year normal school) to offer teachers' courses in academic subject matter. Rather, if we move toward a general trimming down of the number of required professional courses, we shall, as a result, free student teachers to pursue with greater zeal the necessary subject matter courses, in which case we may recommend (with the young man always in mind) that teachers' courses in academic subject matter be emphasized and strengthened. This will have two related advantages. First, it will permit prospective teachers to secure training, under major professors, of the major academic subjects pursued; and second, it will free them from all pedagogical courses in method except the basic professional course in general methods of teaching.

Supervision or "Snoopervision"?

Although the principals of American elementary schools have done much to put school supervision on a more dignified plane and although we find it, in such cities as Oakland, Calif., for example, well fitted to the general scheme of school administration, much remains to be done before it can be fully accepted as a satisfactory administrative device. Every school teacher and many board members know how pusillanimous supervision may become, and I am not at all sure that this is so much due to lack of training for that noble art as it is to over-emphasis and undue specialization. Professors in our teachers' colleges have been advocating "scientific" supervision for many years, and to them should be given the credit for the many fanciful schemes that parade under supervision's banner. Frankly, I think there are but a few of them who know what they are talking about.

However, it is not my purpose here to attack supervision as a general stratagem to advance the cause of "scientific" education. Rather, it is my intent to show that a little more common sense in supervision would do much to help retain the young men who have gone so far as to take up teacher training. The teachers' colleges have worked out elaborate plans for putting the trainee through the stages of student teaching, and, in many stances, the situation set up has become so artificial that it is not only almost useless in preparing teachers for regular employment but is so recognized by the students themselves. Now, a girl, meditating matrimony, or at least looking toward teaching as a temporary occupation, will go through any amount of supervisory criticism no matter how silly she may think it to be; but a young man, looking at teaching as his life occupation and hoping to find in it things that will demand the exercise of manly qualities, is easily irritated by the quibbling over small details of classroom management so frequently introduced by supervising teachers. And, although he recognizes the temporary situation as artificial, he knows that so many of the school systems in which he might find employment are sold on the idea of "scientific" supervision and that he is likely to have to put up with it wherever he may go. Consequently, when some occupation beckons that does not seem to be so fraught with "spying," he sets out immediately in the direction of it.

What the young man needs more than anything else, if we are to get the advantages of his services, is to be given the task to perform and allowed, with a minimum of interference, to work his own way out. I remember the advice of one college dean to whom I had expressed some doubt as to my ability to teach a university class for the first time. "Go right in and do the best you can," he said. "If you don't know your stuff, the students will *make* a teacher out of you. And there will always be one red-haired fellow in the back row," he added, "who will do more to perfect your instruction than all the supervision we could provide." It worked out just that way. I was not new at the teaching game, but teaching university students is "something else again."

MY BOYS

F. L. Hayes, Chenango Bridge, N. Y.

This world of ours is a busy place,
Some shun its bustle and noise,
I don't mind the din, but I wade right in,
For I am a teacher of boys.

We have plenty to learn these busy days;
So much crowded into our schools,
Nutrition and germs conned well in two terms,
And all worked out by the rules.

Our games we play with an eager zest
We try to be honest and square,
The time flies along with joy and song,
Of the clock we are not aware.

The mills their products are turning out,
There's trinkets, there's tin and toys,
My results, who shall say, they do not pay?
Just remember, my work is with boys.

As the days and the weeks pass swiftly along
And my school is closed, what then?
In the world, at the end, the boys I send,
Shall I be proud of the men?

Some folks, of their tasks, grow discouraged,
They would rather go roaming around.
I'm fond of my work, and I'll try not to shirk
Till there's not a boy to be found.

To fame and to wealth, I lay not a claim
And when earth seems lacking joy,
I'll rest content, the days well spent,
If I have but helped some boy.

Now, when I visit some model training schools for teachers I always take a good look at the young men starting out under so close supervision. It is the washing-out process in full operation and I know they are not likely to be with us long. Just as soon as self-respect begins to assert itself, they will hunt out occupations where, if men are not always men, they at least have the freedom to be.

For teaching is, indeed, becoming a woman's field, and, while women are highly successful at it, they are inclined to distrust one another. For that reason supervision, as it has been thus far worked out, is psychologically appropriate. But men do not take to it so well, and it is, I am sure, one of the important reasons why their numbers grow smaller and smaller. Can we not, then, find ways for eliminating much of the gratuitous surveillance that passes under the name of supervision both in college and in the field?

A "Holier-than-Thou" Attitude

It may be due to the weaknesses of human nature, I don't know; but I have observed that the science of education does something to the male teacher, when once he is inoculated with its virus, that removes him so far from humility that a telegram from Saint Peter himself would be reported back undelivered. He becomes, in truth, the great "I am," and speaks a language his own mother would not understand. With his new rules and formulas, he mouths a jargon that out-medics the medical men. But what he fails to see is that, in his bid for a place in the hall of scholarship, instead of being of service to the general cause of education, he and his kind have set it back a decade or two. For scholarship at best is nothing more nor less than a sifting of all the facts and making these known in the simplest manner to the less informed. Words we employ to cover up our ignorance and to noise we resort to, conceal our fears. But, under the surface, we are all pretty much alike; it is not given to any of us to "know it all," and even the prestige of institutions we must carry with conscious counterfeit.

There is no just reason, therefore, why those who have reached the hazy heights of higher hallucinations should look down with disdain and indifference upon those who walk the common paths of simple directness. But they do, as any young man will testify who is starting his labors in the teaching field, and because he is so far removed from the sacred circle that encompasses the worth-while tasks and movements in educational progress, he works as one apart or gives it up altogether. In other words, if he has not been graduated from one of certain institutions or if he has not had work with some of certain scientists, he is as bare of preparation for the intellectual life he must pursue as some of our well-known leaders are of a coat of common sense. But, since we are all working for the same cause, that of raising the nation's intelligence, is there not some way that we may rid the teaching profession forever of the spirit of condescension that is common to its upper reaches?

Service the Important Thing

One of our educational fraternities has as its motto, "Research, Service, and Leadership." All three of these are good when freed from the encumbrances of ostentation and conceit, but the greatest of them is service. It is a human law that that man is happiest who is being of service to somebody or something, and I think our young men know this. Every year finds an army of them casting about for occupations in which, first of all, they are likely to succeed and in which, secondly, they may be of some service to humanity. It is unfortunate that to many of them success has come to be interpreted in dollars and cents, but it is a condition, unless we find ourselves in the midst of another panic, we shall have to meet squarely if we want them in the profession. But, to give them the opportunity to serve is quite another thing, and, in order to do this, we shall have to rid the profession of certain of its outstanding drawbacks. Those that have to do with their training for teaching have been pointed out in the foregoing paragraphs, and we may turn our attention to a brief consideration of those that lie more properly within the field of active and regular teaching itself.

Certainly, we cannot hope to enlist the strong young man for the teaching profession nor to keep in the strong young man already enlisted unless we put the profession on a plane with the other traditional professions. As pointed out in an earlier article, strides have been made in this direction by demanding a long course of professional preparation before teaching is undertaken; but this is not likely to be so effective in attaining our goal as a general stock-taking of the peculiarities indigenous to the profession, those that, so far as the young man is concerned, have given it a black eye.

Personal Peculiarities

One might write at length about the peculiar traits and characteristics that mark the modern schoolman as an offshoot of the old-fashioned pedagogue, but most of his diatribe would be but a general treatment of human nature itself. We, as human beings, are so much alike in our physical appearance and differ so little in our modes of thinking that it is only the work we do and the manner in which it affects us that makes us noticeably variable from one another.

That the points in which we vary are but superficialities has not been strongly emphasized, yet it is by these very surface traits that we are most frequently judged; and the schoolman, setting an example for him who may follow in his footsteps, is possessed of his share.

Let me quote from an editorial in the student paper of a four-year teachers' college:

One of the greatest dangers of school teaching is the development of narrow-mindedness. A teacher who teaches only two subjects during his whole career is inclined to master his two subjects at the expense of other needed knowledge. The teacher's evenings are often spent in grading papers or reading material concerning his special interest. All day long he gives the pupils advice, explanations, and corrections. Realizing that he knows more about his subjects that the pupils, the teacher is likely to develop a superior feeling and an unwelcome attitude toward differences of opinion. When he exhibits these attitudes in public other people form an unfavorable opinion of him. Teachers who have dropped into these pitfalls have undoubtedly originated and perpetuated the prevalent opinion that teachers are self-conceited, narrow-minded "know-alls."

Perhaps there are two traits developed by the teacher that set him off as different from other professional workers. First, he is always on the defense—defense of the things he teaches and of the profession itself; and second, because of the very nature of his work—the search for and proclamation of the truth—he is given to doubt, fear, and lack of confidence. Each of these traits he ordinarily tries to hide behind a mask of arrogant intellectuality, and the combination gives him a complex that is soon penetrated not only by those who sit under his instruction, but by those who must come in daily contact with him in life outside the school. Professional work of most kinds gives one an intellectual stamp that is not common to the so-called vocational occupations, but too many of our educational leaders remind the young man of the busy, little fellow in the story of Rip Van Winkle who rushed up to Rip and asked him which way he was going to vote.

Now, I think the profession of teaching would be much better prepared to enlist strong young men if the men already in would pay more attention not only to the atmosphere of pedantry they have created, but to their "personal appearance." I realize, of course, that the persistent lack of adequate income has been responsible for some of the shortcomings in this direction, but they cannot all be assigned to that. The profession has drawn from men who know little of the proprieties of dress, and these have been too easily satisfied with the durability of the broadcloth suits in which they were married. There should be some way to "get over" to these that appropriate seasonal colors and a little greater care in keeping clothes presentable; i.e., that "it pays to look well," is applicable to them and their work even if one must resort to the installment plan. I remember the advice of Professor George H. Tapy of Wabash College. In addressing the young men who were studying education in his classes, he said: "I would always try to look well if I had to borrow the money to do it." Incidentally, Professor Tapy set a good example for his students and most of them have followed it despite lean years.

Again, it is hard to understand what backgrounds a man must have had if he is the very soul of courtesy and politeness in the classroom yet attracts undue attention when at his meals. I have met so many of these that I am inclined to think that we need training tables for them as well as for our athletes. In mentioning the matter we must not overlook the fact that bad table manners are common to other professional workers, too; but the fact that one *teaches* makes it all the more important that he set a good example even there.

Another trait that is distinctly pedagogical is the habit of maintaining a professional atmosphere in speech and conduct when engaged in activities nonprofessional in character. Many men teachers never "unbend," and while this is most noticeable in professional conventions (in addressing room clerks, bellboys, etc., or even passing the time of day) it may be observed in many men teachers under whatever conditions they may be found. They still shake hands in the manner of Edward VII and are always ready to make a public address in answer to the simplest question.

All this implies that men teachers need more outside contacts. They should be able to have friends outside of the profession and should, consequently, gain from these the knowledge and breadth of experience that would make of them better examples to emulate. But one can easily see why they do not have more contacts even when they are desirous of having them—the teaching load (which really includes the ever-necessary homework) is too heavy to permit the improvements that would naturally follow. And may I insert here that men who work on a salary should not be compelled to work after the eight-hour whistle has blown? Schedules should be so trimmed down and planned that preparation for the next day's work might be done within the limits of the usual working day, thus allowing time for recreation and personal improvement.

Five Extra Activities

And, while we are on the subject of personal improvement, it occurs to me that there are five extra activities which, if properly carried out, would make of men teachers the real "humans" the young man likes to look to for guidance. These, for the sake of brevity, I shall simply enumerate. The first is attendance upon professional conventions, not only for professional profit but for the inspiration that comes from occasional change of scenery. The second is the necessity for developing the ability to speak persuasively and intelligently in public. When one really learns to *think* on one's feet, he is in a fair way to not only help himself but his profession as well. The third is to form the habit of writing. Bishop Hughes once said that, whenever he found himself without anything to do, he sat down and wrote a lecture. This doubtless accounts for his well-known preparation to speak whenever called upon, and, for the man in teaching, it not only means that he will come to know more than others about a subject but will be able to put in written form any new idea or new theory. The fourth, and one in which teachers as a class are woefully short, is the need for learning how to manage one's personal affairs. Teachers, especially men, are much criticized in business and professional life for knowing so little about business that they are traditionally improvident and are put on all "sucker lists" in the underworld of business enterprise. And fifth is the equitable adjustment of extra time that it may be given to further professional training, if for no other reason than that of finding out what problems other teachers have and how they go about solving them. To sum up these five activities into a general principle, we may state it thus: *Men teachers, if they are to help to keep the right sort of men in teaching, must attend professional conventions, learn to speak and write effectively, learn more about business detail, and keep up in professional study.*

No Set Scheme for Getting Men in

Now, it is evident that we cannot formulate any rigid plan for influencing young men to come into the profession of teaching, nor can we force them to come in. If one were to recapitulate the three articles of this series in one sentence, the result would be something like this: Clean up the obvious faults and shortcomings of the profession so that the better young men may be proud to enter in; and pay enough to keep them from wishing they had gone into something else.

I have purposely avoided mention of appreciation of the profession by those who expect to stay in. Most of them do appreciate the profession and swear by it instead of at it. It is only those who are dropping out that wail openly against the inequalities, and the complaints they make are largely those set out herein. I think that the principles enumerated and discussed might all be bases for action, and the simplest kinds of action at that. And, knowing pretty well the type of strong young man who would come in if sufficiently encouraged by the conditions of teaching, I may be excused for insistence upon the fact that when these things are done the young men we want will come in.

Changes in Textbooks

How Oswego, N. Y., Enlists the Aid of the Teachers

Superintendent Frederick Leighton of Oswego, N. Y., enlists the help of all his teachers in the selection of textbooks. His plan, which has been in operation during eight years, has now been modified in a few minor details and has been officially promulgated for the school year 1928-29. Mr. Leighton explains the procedure as follows:

"It is very important that each teacher keep herself informed in regard to new textbooks as they appear. If a textbook has been in use so long that it is decidedly out of date or if in the teacher's judgment it would be to the advantage of her pupils to replace the text in use with a more accurate or progressive book, the teacher should notify the superintendent in writing on or before Oct. 1 of each school year, that in her judgment a study of the textbooks in the particular subject should be made during the school year for the purpose of determining what book, if any, should be recommended to replace the book in use. Such a decision should be reached by the teacher independent of suggestions or requests from anyone else. The notice to the superintendent should be an individual notice resulting from an individual opinion and should be sealed. These notices will be tabulated and the representative of the book company whose book is in use will be informed of said notices when he inquires or first calls thereafter at the superintendent's office. Representatives of other book companies who inquire or call will be notified of the teacher's desire for a change.

"Between May 1 and the close of school, each teacher who has previously sent a notice to the superintendent to consider a change in a textbook, will be given an opportunity of expressing in writing her first, second, and third choices of books to replace the one in question. This request should be individual and should be sealed. If the teacher will consider her request confidential, it will add to its value, as the superintendent wishes to get the teacher's opinion uninfluenced by the opinion of anyone else. These requests will be carefully considered by the superintendent, who will decide what recommendation, if any, he will make as to a change in this particular text. The superintendent, who must take the responsibility of the change, reserves the right to recommend any of the books requested or a book requested by no one, regard-

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Administration Letters of a Superintendent

Elementary Principles of Administration

To the Principals:

I am going to call to your attention some fundamental principles of school administration. They might be called elementary principles, yet many of them are being observed by all of you, and all of them are being observed by many of you. There are occasions, however, when some of you fail to observe these priniciples.

1. Teachers, in their relation with their pupils, should be in full authority in the classroom. Nothing should be done to undermine that authority. Under no circumstance should a teacher be reprimanded or adversely criticized in the presence of pupils either in the classroom or elsewhere. Pupils should never be reprimanded for carrying out orders or requests of their teacher even if the teacher, in asking pupils to do a certain thing, has asked them to do something which the principal has prohibited. In cases of this sort, the principal should deal directly with the teacher. To blame the pupils is equivalent to telling them that the teacher has exceeded her authority.

2. Principals should not criticize an individual teacher in the presence of other teachers, and should not mention a teacher's faults to other teachers at any time. A principal who does this cannot expect to retain the loyal cooperation of his teachers.

3. Building principals should never adversely criticize the supervising principal to anyone except the superintendent of schools, and to him only after a conference with the supervising principal. The supervising principal should observe this same rule in all her relations with the building principal, except that the supervising principal by reason of the duties of her office may and is expected to offer friendly professional criticisms and suggestions to the building principal.

4. In the absence of the building principal, the teacher who is selected to look after the duties of the building principal, has all the authority of the building principal during said principal's absence, and no adverse criticism of such teacher's acts should be made by the principal to anyone except to said teacher or to the superintendent, and to him only after a conference with the teacher. A teacher to whom is temporarily given the duties of building principal is an acting principal, and must be accorded the right to use her own discretion and judgment to an extent equal to her responsibilities.

5. Assistant principals are assigned definite duties and responsibilities. They should have authority equal to their duties and responsibilities. They should not be adversely criticized to anyone except themselves for their official acts whether good or bad, except to the superintendent, and to him only after conferences between the supervising principal and the assistant principal.

During the absence of the supervising principal, the assistant principal is in charge of the school and has all the authority of the supervising principal. During the absence of said principal, the assistant principal is acting principal with all the responsibilities and prerogatives of the principal in all matters which come before her for action, judgment, or settlement. The orders she gives, the actions she takes, and the settlements she makes on matters needing attention are final and not subject to review by the principal on her return, unless such orders, actions, and settlements involve a continuing policy. No janitor, teacher, nor pupil should be taken to task by the principal for carrying out suggestions, requests, or orders made by the assistant principal at any time. To blame a janitor, teacher, or pupil for things done under the direction of the assistant principal is equivalent to announcing that the assistant principal does not possess the personal and professional ability necessary to the proper performance of the duties of the office of assistant principal.

Anyone who is required to take suggestions or orders from the principal is required to take orders from the assistant principal, and should under no circumstances be blamed for doing so.

All new teachers should be made familiar with the customs and regulations of the school. A teacher who was a substitute in a school new to her, recently stated that certain rules and regulations regarding the duties of teachers in that building had not been explained to her and that she was blamed for not conforming to one of the rules. This statement was not made to me originally, but came to me indirectly through a member of the school committee. I took the matter up with the teacher for two purposes: first, to find out the basis of the statement; and secondly, to explain to the teacher that she should have gone to the principal with her grievance and then taken it up with the superintendent, if an understanding and satisfactory settlement could not be had with the principal.

The answer to my first suggestion was that the principal's attitude seemed to the teacher to be severe and unfriendly rather than sympathetic and helpful, and that she (the teacher) didn't care to place herself on the defensive in a case in which she considered herself the injured party. The answer to my second suggestion was that the teacher took it for granted that the superintendent would officially support the principal in a case of minor administrative detail, even if the principal was at fault.

Leaving out of the consideration the question of whether the teacher was oversensitive and therefore misunderstood the attitude of the principal, we must admit that each of the answers which I received to my two suggestions indicates a weakness in our administrative work. Certainly teachers have a right to feel that principals should be sympathetic, friendly, and helpful to all teachers, and, likewise, teachers have a right to feel that the superintendent will be fair and just to teachers as well as to principals.

The importance of this particular case lies not in the fact that a building regulation was not obeyed by a teacher. Neither does it lie in the fact that the regulation had not been called to the attention of the teacher. The important thing is the lack of confidence which the teacher has in the principal and in the superintendent. If this lack of confidence should exist to any great extent I do not believe it does) then there could be no successful administration of the school system.

A successful school system is dependent upon cooperation and there can be no cooperation without confidence.

There should not be too many rules and regulations. It should be the duty of the principal to acquaint all teachers, even the occasional substitute, with the rules and regulations. Principals should be friendly and helpful to teachers and should be careful not to interfere personally in matters that are the teacher's prerogatives.

Sometimes a principal, through a desire to be helpful to a teacher in matters of discipline, damages the teacher's prestige with the class. For example, only rarely if ever should a principal supervise the passing of the pupils from a classroom or from the building. If the principal thinks the lines are disorderly and need to be halted or rearranged, he should take the subject up with the teacher. If it seems necessary to talk to the class about it, it should be done at another time and in the classroom. One of the worst things that can happen to a teacher's discipline is to allow the pupils to get the impression that the principal thinks the teacher's discipline is weak.

—Superintendent of Schools

The Home Bulletin Board

H. M. Leinbaugh, Superintendent of Schools, Lewistown, Ill.

While visiting a successful superintendent of schools at his home, the writer noticed a small bulletin board on the wall of the home office. On the board were four clippings of a rather unusual type. Only one pertained directly to schoolwork. A careful reading of the four, however, revealed their value to any schoolman. It is the practice of this superintendent to clip material of this nature and keep it in sight where it will not be forgotton. Too often it is filed away and lost for all practical purposes. The first clipping was taken from The Illinois Teacher.

"G. P."—Good Fellow

It is easy to imagine at least, what Gilbert P. Randle is doing, now that the former city superintendent of schools of Danville, Illinois, has passed on to the Unknown. Our guess would be that he is getting acquainted with those who have gone before him.

Gilbert Randle had an unsatisfied desire to know everybody. When a guest was introduced at the Rotary Club, he was one of the first to rush over and shake the visitor's hand after the meeting. When he attended an educational convention, he was uneasy until he had worn off the air of strangeness surrounding him.

That thirst for fellowship made him a personal friend of "big men" and ordinary fellows alike. Hence, it was that, wherever a friend of Gilbert Randle met another friend of Gilbert's, the question was certain to be asked, "How was G. P. when you left him?"

Gilbert Randall firmly believed that getting acquainted with the fathers and the mothers, the boys and the girls, was his job as superintendent of schools. The result? Dr. Bagley, of Columbia University, declared Gilbert Randle to be one of the five best city-school superintendents in the country.

Gilbert Randle had mastered a lesson which the world, with its jealousies, has not yet learned in its completeness.

How many superintendents have mastered this lesson?

The second clipping reiterates the lesson of the first and was taken from the Saturday Evening Post for February 22, 1922. Here is shown a successful senator mastering this same human-relation problem that confronts all executives.

There wasn't a day when Senator Platt, of New York, didn't see some of his lieutenants, not a day when he was not in touch with some section of his great New York political domain. Take Senator Murray Crane, for example. It is probable that there wasn't a day for the past ten or fifteen years of his life when he was in Massachusetts or in Washington, and not ill, that he did not call up from one to a dozen men around

(Concluded on Page 136)

Town and Village School-Board Problems

Perley W. Lane, Vice-Principal, Stamford High School, Stamford, Conn.

If one will turn to the index of an atlas, he will find classified according to states the populations of all towns and cities in the United States. The most cursory of glances will reveal that population totals are seldom beyond four figures and usually within three digits. The totals using five or more digits are conspicuous by their infrequency. A government bulletin[1] reports that in 1925 the average enrollment for 5,110 high schools was 50 students or less, for 9,150 high schools was 100 or less, for 2,618 high schools from 101 to 200, for 1,728 high schools was 201 to 500, for 717 high schools was 501 to 1,000, and for 614 high schools was more than 1,000 pupils. The typical school system, then, is not a large system.

Town and village school boards are charged with the major educational responsibility. Yet most books on educational administration deal with school problems from the point of view of the large community. This is unfortunate, for the elaborate, lengthy, or scientific discussion of this or that problem does not, after all, help the typical American school system. Undoubtedly more attention will and must be given to those communities which struggle with average equipment, average teachers, and average potentialities.

Town Problems Difficult

This article grows out of personal experiences and observations in towns and villages. It will attempt to discuss a few of the major problems which confront school boards in typical school systems. It will report one man's experiences, impressions, and conclusions with regard to actual town and village situations. A statement of the whole problem would be impossible. For example, I have observed a community which argued for seven years over a school site. During this heated controversy, the money gift for a new school had increased many thousands of dollars because of the interest accumulations. Probably scant attention had been given the scientific research available on this subject. The point is that no one article or book or series of books can cover all school administrative procedure.

Town and village school-board problems are often so overwhelmingly numerous, perplexing, or disheartening. It would seem that city boards have an easier task. The very size of their difficulties preclude small-town gossip, personal criticisms and political bargaining. More often it is possible in the city to systematize appointments, salary increases, and promotions. There is usually more money with which to work. The city can afford to employ efficient teachers and executives. The city can discharge when necessary. It can build new buildings, provide modern equipment. Invariably exceptional men with experience in important positions are available for city school boards.

But not so in town and village. The taxpayers know where most of the dollars go. Taxpayers are more effectively parsimonious. School boards provide a fruitful subject for family discussions. Appointments are scrutinized very often with prejudice. It is difficult to drop local teachers who are unsatisfactory. There is necessarily a heavy turnover. Finally, small-town politics have a discouraging tendency to color decisions affecting school progress.

The Superintendent

Undoubtedly, the most vital link in the chain of problems which town and village school boards are called upon to handle is the problem of the superintendent. Why the good sense of this statement is so frequently ignored is hard

[1]U. S. Bureau of Education, Bulletin No. 40, 1925.

to understand. The superintendent is the man who pilots the ship to port. It is he who stands on the bridge when gales blow. Nevertheless, in some boards there is some strange idiosyncrasy which has operated to continue the need for the old adage that too many cooks spoil the broth. And it is this misconceived notion with regard to the superintendent which constitutes the most important problem confronting town and village school boards.

In business, the superintendent may be compared with the president of a corporation. Now what does a board of directors do when the corporation fails to declare a dividend? It asks the president for the reason. It indicates at once that the president is responsible. The president makes his monthly and annual reports. The board weighs the validity of the president's explanations. Then it either marks time or gets a new president. The point is that the president has been elected to manage the firm in accordance with certain broad, very broad, policies. The board expects the president to engage and discharge employees, to recommend and choose equipment, to prepare and anticipate changes in the products, to maintain and improve the plant, and, finally, to show earnings and growth. That is business. To put it crudely, *it is up to the president.*

The philosophy and the methods of boards of corporation directors do not always obtain with the public boards which conduct schools. Too often one observes a town or village employing a good *cheap* superintendent, or a good *permanent* superintendent, or a good *safe* superintendent or a good *congenial* superintendent, or a good *rubber-stamp* superintendent. Boards forget, sometimes, that good superintendents are not necessarily cheap, or permanent, or safe, or weakly congenial, or of the rubber-stamp variety. Indeed not. Real school executives earn good salaries and expect reasonable tenures. In return for these considerations they save communities large sums of money and show important educational dividends. A real superintendent deals with realities. He is not a complacent, apologetic sort of man. He teems with ideas. With the confidence and the cooperation of the board, he expects to carry a school system forward. A good executive can do much for a system in three years; a poor executive, given time enough, can make a ravine out of a rut.

All Superintendents Not Efficient

It should not be presumed, however, that all superintendents who appear efficient are actually capable and qualified to handle all the problems which arise. Indeed it happens, now and then, that a superintendent creates for the board a problem in himself. A young man at times comes to a community full of theoretical knowledge and untried ideas. He is eager to succeed and impatient to act. He rides rough-shod over teachers and conditions long established. The result of his régimé soon becomes confusion and turmoil. Perhaps tact, foresight, and deliberation would have prevented his heedless and unwise procedure.

Again there are superintendents who have in past years received their setbacks and have reached the point where they feel that watchful waiting and "setting tight" are desirable attitudes. Unlike the executive described above they lack the impetuosity of youth and care, not for prerogatives, and so rest supinely in the wash of the wave.

Once a community seriously attempts to place a good man at the helm, better days are assured. The never next step is this: that a good man's hands shall not be tied. A misunderstanding of a superintendent's duties is productive of much trouble. So much has been written concerning a superintendent's functions. As a matter of fact and in the last analysis, it depends. Every community is to some extent a law in itself. Frequently too much attention is given to functions and prerogatives as such. To begin with, a superintendent should demonstrate that he can fulfill his duties. The burden of proof rests on the man who wants a free hand. He must win confidence, sell ideas, and execute successfully. If these moves are consummated, then the board will not and should not tie the superintendent's hands.

Keeping Pace

Boards find it difficult to keep pace with educational progress. While the science of education has leaped ahead, many laymen have found it difficult to keep themselves informed and in a receptive attitude. Fortunately there is evidence that boards are catching up and can catch up. There is a national organization for school business officials. School-board members are being placed upon state educational committees. There is a magazine devoted to school-board problems. State commissioners of education are attempting to inform boards through literature of modern developments in education. The very size of the school problem has served to focus attention more sharply upon school matters. Let a good superintendent carry on; let his abilities be utilized; and be it remembered that the board is finally and completely and properly responsible to the electors who provide the schools.

My first suggestion, then, concerns the master mariner. Assuming that he merits his title, think of the superintendent as the chief executive officer or the president of a corporation.

1. Choose the superintendent with care as to (*a*) experience and training; (*b*) character and adaptability; (*c*) possibilities and vision.

2. Once the choice is made, let him (*a*) choose his administrative officers and teachers; (*b*) supervise and direct; (*c*) develop and formulate educational policies; (*d*) lead and arbitrate.

3. As efficient school boards, give the superintendent (*a*) an adequate salary; (*b*) reasonable increases in salary; (*c*) a fair expectancy of permanent tenure; (*d*) the confidence which a successful executive deserves; (*e*) a free hand and sympathetic attention; (*f*) encouraging words and attitudes; (*g*) a chance to expand and develop; (*h*) assurance that he is superintendent.

4. As astute judges of human performance, be sure that the superintendent (*a*) warrants confidence; (*b*) thinks sanely and deliberately; (*c*) moves tactfully and wisely; (*d*) demonstrates courage and progress; (*e*) works *with* and *for* the board.

The Local Teacher

I indicate the second school problem with some hesitation. In the first place, it is not customary to find that the local teacher is considered a major difficulty. Perhaps this is true for the reason that the problem of the local

teacher is peculiar to the small town. In the second place, the local-teacher condition is so subtle that one does not ordinarily relate it to general difficulties. Finally, the local-teacher question, like capital punishment, permits a wealth of pros and cons.

It is true, nevertheless, that the local teacher may be the pride or despair of any town or small-city school board. The problem is handled in different ways. Some communities require a minimum of two years of experience in other towns before appointing a local candidate. This regulation is invariably unpopular with parents, taxpayers, and teachers. Other towns appoint local candidates immediately upon graduation from normal school or college. Recently, I read that a school-board member in a neighboring town recommended this amazing piece of legislation: that when a local candidate applied for a position and there were no vacancies, a vacancy be created by dropping the last outside teacher appointed. It turned out that the champion of this rule had a sister-in-law who desired a job.

The by-laws requiring outside initial experience appears after reflection to be a sort of detour around a straight course of thinking. It gives the superintendent a convenient method by which to shut out undesirable local candidates. It admits that the town finds the problem embarrassing. It assumes that other communities are inferior or suited for apprentice teaching. It gives an advantage to the outsider who through no choice of her own chances to live in another community. It operates to exclude the desirable local teacher. Altogether it seems to be a practice without any direct relation to efficiency and a very direct relation to convenient subterfuge. It denies the fact that a teacher should be judged on the basis of fitness, training, and latent possibilities, and the fact that first-class teachers frequently emerge immediately upon graduation.

Those towns which will appoint local teachers immediately have their difficulties. It is usually true that the local teacher remains forever and a day. To be sure this removes the inconvenience of a resignation and an attendant appointment. The fact that the local teacher will, and does, work for less, weighs heavily with short-sighted superintendents and boards. The appointment and retention of local products also provides an opportunity to repay a political favor, or to do a friendly turn.

The Local Teacher's Personal Problem

The problem of the local teacher is laden with hidden and thorny snares. It may easily be forgotten that ambition and progress follow economic urge and employment pressure. By and large, we do not tend to hustle when conditions do not require. A life tenure to a young teacher may prove to be a life wasted. Then, too, the local teacher places the outsider at a distinct disadvantage. There is the case of a local teacher of my acquaintance who was appointed against the recommendation of the superintendent. A year later the board voted a 25 per cent increase to this same local teacher, once more contrary to the superintendent's judgment. A principal, meanwhile, was given a 5 per cent increase grudgingly. The salient feature of this whole episode does not concern the admitted excellence of the local teacher's work, but rather the fact that home-town prejudice and ties could and did precipitate a controversy inimical to the school system as a whole.

It is true that the local teacher has a multitude of duties which serve to draw her from school duties. All statements notwithstanding, the local teacher has a local church of long standing, a local society, a local bridge club, a local family, a local music teacher, a local dentist, a local circle of friends, local dependents, and a local side line. Each and any of these activities absorb time. But it is the inordinate number of these home-town distractions and duties which cause the mischief. It is natural that her life interests should be centered on the town while the outside teacher's life interest should be the school.

Then there are the local complexes, inhibitions, and prejudices. As to Sally Jane. "Well, she comes from poor stock. Her father was never any good. Down in the grades she was a problem. I know Miss Brown who lives on my street, have known her for years. She has told me about Sally Jane." There are religious conflicts and feelings, political convictions, and social cleavages. Parents will often go to teachers who have lived across the street for years. Sometimes they will do the opposite for the reason that the teacher's family had a dog which chased the parent's hens back in 1910. It is most difficult to escape or avoid a condition inherited from environment and home ties.

There is a natural tendency to run to the school board. "I've known Joe Smith for years. Why we went to school together. My brother works for Joe Smith right now. In fact they belong to the same lodge. I'll get the principalship, wait and see. Joe is chairman of the board." This is not a subtle, carefully calculated procedure on the teacher's part. Rather, is it a series of natural reactions to a normal setting.

A Policy for Local Teachers

These and other considerations operate to encourage the local teacher to delay improvement in service, to depend upon unprofessional methods for promotions, to bargain for salary increases, to dispose of problem cases unjustly and unscientifically, to neglect those duties not within the classroom, to develop jealousies, and to make odious comparisons.

But, and this cannot be stated too strongly, there are local teachers who fill extraordinary places in their home towns. Indeed, it is more difficult to teach well in one's home town. Every school board will do well to recognize and encourage the strong local teacher.

Perhaps these points will suggest a policy with regard to the local-teacher problem:

1. Regardless of local experience or local affiliations, group the candidates and choose on these bases: (*a*) scholarship and intelligence; (*b*) personality and character; (*c*) ambition and achievements; (*d*) health and adaptability.

2. Limit local appointees to a certain percentage in each school building.

3. Require of all teachers, evidence of improvement in service for promotion and salary increases.

4. Forbid interviews of teachers with the school board. Refer such solicitations to the superintendent.

5. Discuss teachers in executive session and by letter or number if possible. Make it an impersonal matter.

6. Remember that a cheap teacher is as satisfactory as a cheap gasoline. In the long run there is less pick-up, more carbon, less speed, less quality performance. In time the system develops distressing knocks.

7. All taxpayers and parents notwithstanding, hold to the precept that schools are for pupils and not necessarily for home girls.

School Publicity

Undoubtedly the school is the public's business: It is the right of the taxpayer to know how his money is being spent, but it is not right to make of the school system a public debating society. There are limits to what the public should know. Teachers, for example, often suffer from idle and unnecessary gossip. Frequently a school board inadvertently conspires to bring about this condition. There is a town which comes to my mind in this connection. There is a vacancy for which John Brown applies. He is at once reported in the local newspaper as a candidate. This embarrasses him at home where he is supposed to be satisfied and probably is as satisfied as possible under the conditions. One observed that business is especially careful to treat applications for positions as confidential and personal matters. To make of a vacancy a public contest, appears unethical from every point of view.

As to the publicity concerning salaries, it is natural that teachers and executives should not desire their earnings to serve as a subject for discussion and comparison. Many towns report that such-and-such a salary scale has been inaugurated and there can be no objection to this sort of publicity. There is altogether too much irresponsible talk with regard to a teacher's business and too little regard for confidential matters. Idle curiosity seekers can go to the tax book anyway.

The custom of some school boards to bring up for discussion in an open session all complaints from whatever source without reference to the superintendent and without any attempt to substantiate the justice of the complaint, places a school at a disadvantage. Indeed, it is grossly unfair and professionally unwise; teachers come to feel that the board is listening to every Tom, Dick, and Hannah. It is, furthermore, violating a confidence in the superintendent who should have the opportunity to make preliminary investigations. So often complaints are personal, groundless, or unimportant. Such matters should never see the ink of newspaper print unless they are found to be true. Even then it is usually wise to correct a wrong without publicity.

The Executive Session

It is the newspaper which resents the executive session. When such a meeting is proposed, there is much to do about serving the public, the sinister aspects of a secret meeting, the need for a new school board, and similar matters. Reasonable editors realize that an executive session has its place and its function. Sensible school boards realize, also, that undesirable and unethical publicity hurts any school system.

A wise school board uses the executive session for those matters which are likely to involve disagreement or controversy. Appointments, transfers, promotions, teachers' salaries, and complaints are subjects for an executive session. What the public should know has to do with the final action which a board takes or, in other words, what were the decisions.

An actual case will illustrate very well a highly professional and efficient school board in action. The board in question consists of nine members, meets monthly, and functions in a city of 50,000 people. The local paper reported the June meeting of this board bringing out the following information:

1. *In executive session the board—*

a) Elected a vice-principal in the high school; promoted two men to be heads of departments in the high school; promoted or transferred four men to junior-high- and grammar-school principalships; placed one principal on an advanced

salary scale; elected two janitors; and approved an additional nurse.

b) Unanimously adopted a budget though the details were held in abeyance pending action by the city finance board.

c) Reelected the superintendent and assistant superintendent.

d) Adopted a salary scale with class provisions and experience and professional maximums.

2. *In open session the board—*

a) Heard a letter from the city counsel, relating to the liability of the city for an accident sustained in a school.

b) Read a letter of appreciation from a teacher.

c) Granted a leave of absence.

d) Received a resignation and ordered a letter of appreciation.

e) Heard a petition for a new school. Brought out that the section referred to was a restricted area.

f) Considered and placed on file the petition of a teacher who had been dropped and who requested reinstatement.

Good Points in This Meeting

There are several lessons which may be drawn from the way in which this actual board transacted its business in an actual meeting. They are worth enumerating.

1. This board appoints and promotes in executive session.

2. This board reports what it finally did, and not the discussions which led up to the decisions.

3. This board appears to accord the superintendent an entire and cordial confidence.

4. This board does not publish a list of defeated candidates nor does it publish the salaries of those appointed or reelected.

5. This board enacts a salary schedule as prepared by the superintendent, thus indicating a progressive tendency.

6. In open session, this board attends to routine matters, that is to say, receives resignations and letters of appreciation, grants leaves of absence, indicates that claims against the school will be settled judicially, sends letters of appreciation and conducts public hearings when desired.

The action of this board relative to the budget may raise some question as to the wisdom of keeping financial deliberations within an executive session. In this case, it may happen that the budget will receive its public day with the finance committee of the city. There are towns and villages where the law provides that budget matters shall be settled in open meeting and that published statements shall be made of all financial proposals. This procedure relieves the superintendent of any unfairly placed or assumed responsibility and acts as a check on the board and the superintendent or upon either individually. It provides a democratic setting and is an essential of democracy.

Not long ago in a certain Massachusetts town, the voters were asked to prescribe the building of a new high school. A heated debate soon arose. Out of the verbal mêlée, however, emerged an idea that caught the fancy of the crowd and saved the day. "Why not choose a committee quite apart from the school authorities. Let this unprejudiced group look into the matter from our viewpoint and from the viewpoint of the schools as well." The proposal was adopted and cooperation and good feeling was so complete that school officials soon saw a splendid building grow out of what had once appeared to be a morass of grumbling and irresponsible discussion. Here was an example of democratic consideration, democratic handling, and democratic effort. In other words, a truly American picture.

Problems in General

In the preceding paragraphs, the problem of the superintendent, of the local teacher, and of publicity has been discussed. In the introduction, the suggestion was made that town and village school boards have numerous difficulties, any one of which may effectively impede school progress. The problem of the married teacher, for example, is a favorite for debate in smaller communities. The problem of presenting budget requirements to best advantage is another. A very serious difficulty relates to the equable and satisfactory distribution of teachers' salaries. What shall be done with regard to pensions? How may teachers be induced to improve in service? How much specialized, higher education can be rightfully expected of the smaller community? What may be done to properly indicate the exact functions of a school board? How, after all, can a school board composed of laymen judge its own system? What criteria are there beyond the word of the superintendent? Thus the list grows.

In Conclusion

Every town and village has its peculiar setting and situation. Of all the town boards and committees, the school board has the largest responsibility. Its deeds will influence posterity. Its policies will simplify life or make it more complex. Its appropriations touch every pocketbook. The growing complexity of life requires more intelligent and more efficient schools. Therefore, consider the school problem wisely and well. Remember that the foundation of the whole school structure is the superintendent. Well chosen and well handled, he becomes the epitome of all that is progressive in education.

A superintendent of my acquaintance has likened his work to that of a lighthouse keeper. Perhaps his figure should have been more comprehensive. The superintendent and the board are the lighthouse keepers, turn and turn about. Near at hand a ship founders. Even so the light does not go out, for the light burns for all ships. The superintendent and board solve the problem close at hand; nevertheless, light is shed on those problems wherever located and however far removed. Keep the light burning; keep the lenses clear, guardian of posterity.

Is a Permanent Teacher-Tenure Practical?

A committee appointed by the National Education Association in 1923, and headed by Superintendent Fred M. Hunter of Oakland, California, to make a study of the teacher-tenure question, has submitted an interesting report in which it submits certain tentative principles and urges a further study of tenure laws in states where they have been given a trial. The committee had submitted reports each year beginning with 1924, inviting comment upon the same.

The list of principles touching upon the subject and upon which there is a reasonable unanimity, reads as follows:

1. Tenure laws should be devised and administered in the interest of better instruction for children.

2. Tenure laws should be accompanied by proper legal regulations governing training, certification, remuneration, and retirement allowances.

3. Tenure laws should be devised and administered as a stimulus to better preparation and more efficient service on the part of teachers.

4. Indefinite tenure should be granted only upon evidence of satisfactory preliminary training, successful experience, and professional growth.

5. Indefinite tenure should be provided after successful experience during a probationary period of adequate length, usually two or three years.

6. The right of dismissal should be in the hands of the appointing board.

7. Laws establishing indefinite tenure should provide for the easy dismissal of unsatisfactory or incompetent teachers for clearly demonstrable causes; such as misconduct, incompetence, evident unfitness for teaching, persistent violation or refusal to obey laws, insubordination, neglect of duty, or malfeasance.

8. The proposed dismissal of a teacher on account of incompetence or neglect of duty should be preceded by a warning and specific statement in writing of defects.

9. In cases of proposed dismissal, teachers should be granted right of hearing.

10. Teachers who do not desire to continue in their positions should give reasonable notice in writing of their intention.

11. Suitable provision should be made for teachers already in service in putting tenure laws into operation.

12. Indefinite tenure should be accorded to all classes of certificated school employees on status of teacher at least.

The committee, in discussing the subject, finds two forms of opposition to a permanent teacher-tenure plan. It says:

First, there is the unthinking opposition which stands against tenure because of prejudice. Those who are numbered in these ranks wish arbitrary control of schools and school systems and have a selfish desire to keep in their own hands the complete direction of all administrative procedures. In some instances a personal or political purpose is the immediate motive. This class of opposition need not be seriously considered because, in the long run, it will be defeated.

Another group opposes tenure because it has given thoughtful consideration to the question and as a result of this consideration has concluded that indefinite tenure causes deterioration in the ranks of the teaching profession. Some of our most distinguished educational thinkers belong in this group. They go so far as to maintain that cities and states which have had tenure in actual operation for many years show the effects thereof in a tendency of the teachers to take their positions for granted, and, consequently, lessen their own efforts toward scientific study of teaching and professional growth.

In addition, this group maintains that because teaching is a public service, it is noncompetitive and that its very nature and the nature of the relationship involved in the employment of teachers by boards of education make the profession noncompetitive, and that it, therefore, tends to become mediocre.

The duty of teachers and teacher organizations relative to these two types of opposition is plain. The first group of opponents should be beaten by our own scientific study of the problem and organization to make clear to the public the real facts. The second type of opposition should be met by a vigorous attitude among ourselves to prevent mediocrity in the profession and to stimulate professional growth. Teacher organizations themselves should have a professional growth program and should devise and recommend means for eliminating the weak and ineffective members. It is only by such measures that we can hope to appeal successfully to public opinion for support.

Cubberley not in Accord

While leading educators, including Frank E. Spaulding, Leonard V. Koos, and George D. Strayer, support the tenure plan, Ellwood P. Cubberley, dean of the School of Education, Stanford University, sounds a note of warning. He says:

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The Evolution of the Public-School Plant

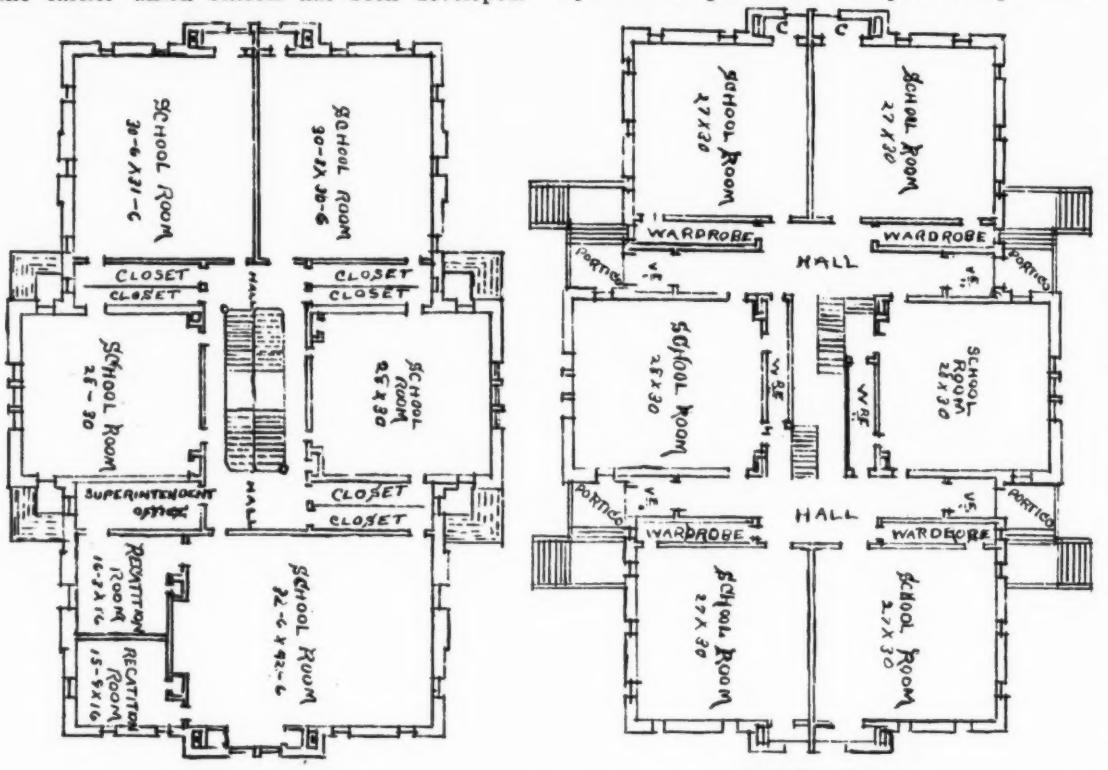
Arthur B. Moehlman, Professor of School Administration and Supervision, University of Michigan

(Continued from September)

Third Standard Type

The third standard type, representing the first break from the union-school plan, was represented by the Webster building in 1874. This school has the distinction of being the first Detroit building to be planned by a superintendent[1] of schools in terms of curricular needs. The Webster type showed many important changes from the Quincy prototype from which the earlier union schools has been developed.

WEBSTER SCHOOL, DETROIT, MICH., 1874



FLOOR PLANS OF THE WEBSTER SCHOOL, DETROIT, MICH.

The building was reduced from three to two stories and basement. The large third floor of the union schools was reduced greatly in size and the recitation rooms leading from it were enlarged.

Entrance to this building was from both front and rear through two corridors providing for four end rooms with bilateral lighting, and two center rooms with unilateral lighting. The corridors were 12 ft. wide.

In the basement was provision for two classrooms, fuel, and janitor's home quarters. The custodian's bedroom was provided with an outside window, for the first time. The first floor had six classrooms, 27 ft. deep and 30 ft. wide, and a long narrow wardrobe with practically no means of ventilation other than might be furnished by keeping the doors open.

On the second floor were four classrooms of varying sizes, with the large assembly room now cut to 32½ by 42½ ft., two recitation rooms about 16 by 16 ft. in one end, and the principal's office placed in the space occupied on the other side by cloakrooms. This building was considered the model of the times, but very few were patterned after it, except insofar as the basement-two-story type was favored.

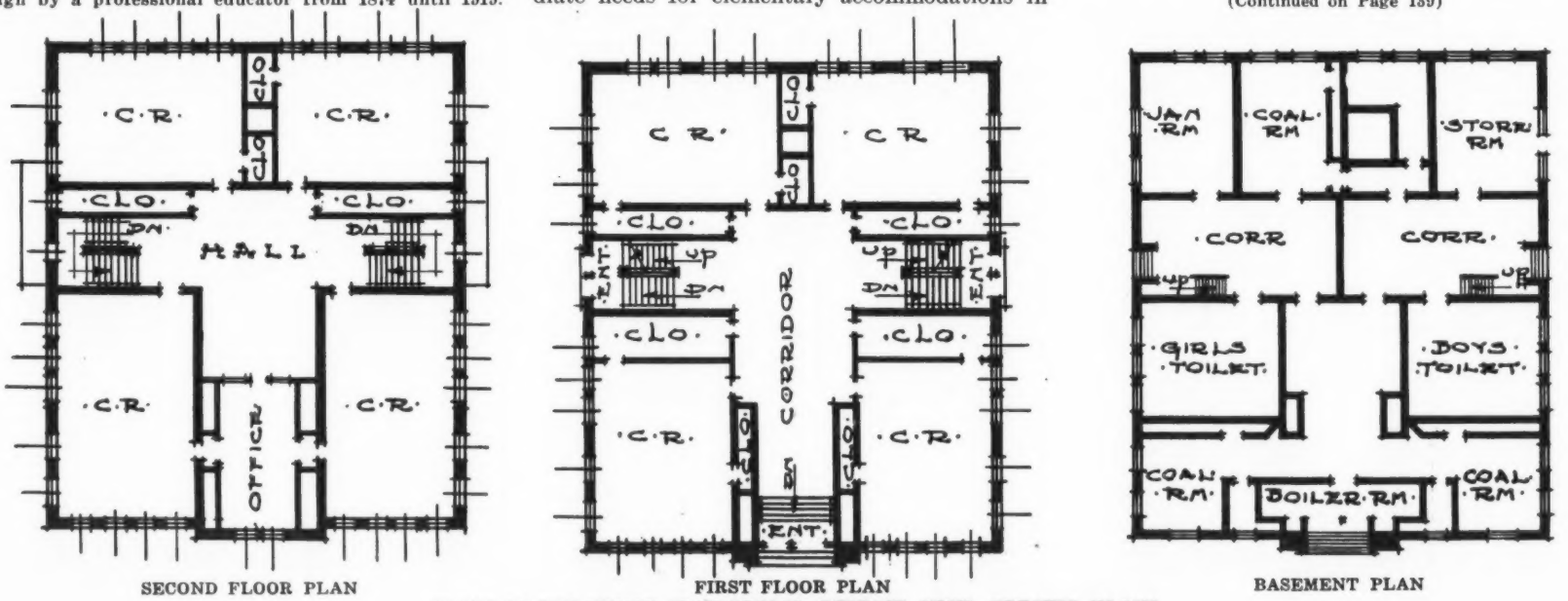
The Webster school was more ambitious architecturally than preceding buildings, and showed considerable French influence in its high-pitched roof, its gables, and roof decorations.

Influence of Growth

In the eighties, the board of education experienced the demand for increased facilities due to growth in the community and also a shortage of funds for building purposes. The result was a compromise. To supply the immediate needs for elementary accommodations in what was then considered outlying districts, and to be able to meet the cost, the board of education developed a smaller building, consisting of only six rooms. The Campbell, Firnane, and the first Clay units were modeled upon this plan and were of wood construction. It was felt that these temporary schoolhouses could later be changed into two-family dwellings and sold. In actual fact they were continued in use for a generation and eliminated only within the past ten years. Several brick buildings were also erected upon the same plan. They included the second Clay, Logan, Estabrook, Jackson, Field, Palmer, and Dickinson buildings. Since they were considered a permanent type, these

(Continued on Page 139)

[1]This is the only local instance of educational design by a professional educator from 1874 until 1919.



PLANS OF THE HENRY CLAY SCHOOL, DETROIT, MICH., ERECTED IN 1888

Student Transportation for Union High Schools in California

Charles W. Geiger

The following facts bearing on student transportation in connection with union high schools in California are significant of the times and of the service which these schools render to widely scattered rural student bodies.

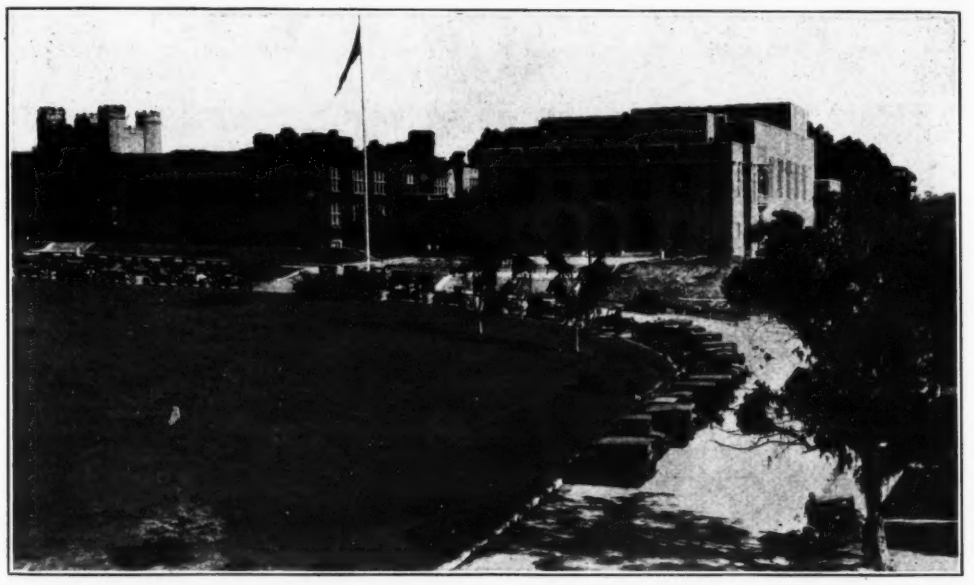
Automotive transportation has a significant place in the activities of Inglewood Union High School at Inglewood, California, as any visitor on the attractive campus of that school may learn at a glance. The numerous automobiles of teachers and students parked at the curbs in the vicinity, the arrival and departure of many students via the several public bus lines, and the movement of many other students by means of the large school-owned busses, are all immediately observable evidences of the importance of the automobile to this school. Valuing its equipment at $30,000, the Inglewood Union High School itself owns five large busses for transporting students to and from two outlying portions of the district, Lawndale and Wiseburn. Four of these are in daily service, while a fifth and older car is kept in reserve. The average total distance traveled by the busses approximates 14,000 miles during the school year of 170 days. About 165 students use these busses daily.

The first transportation of this sort was provided in 1916, when the school purchased two busses. A third bus was added in 1920, two more were purchased in 1922, and a sixth was bought last year, at which time one of the oldest busses was retired and the other was held as a reserve car. All of the active cars are handsome, commodious, and mechanically efficient machines. Besides the five busses, this school owns a touring car and a truck, the former used by the attendance officer, and the latter as a general utility machine.

Students of Inglewood Union High School who do not live in the Lawndale or Wiseburn districts, either walk or use commercial busses, or drive their own cars to and from school. Those students who are not carried by school busses, but who live beyond walking distance, receive a transportation refund in lieu of actual transportation. Of private cars, about 200 are parked daily at the curbs surrounding the Inglewood campus. Perhaps half of the 86 teachers reach school daily by automobile, while the many cars used by students represent every conceivable form of automotive apparatus, from ancient flivvers to aristocratic sedans and snappy roadsters. The perfect network of surfaced streets and highways throughout the 72 square miles included in the high-school district is doubtless responsible in large measure for the popularity of the automobile at Inglewood.

Tustin Union High School, one of Southern California's many beautiful schools, is situated in the heart of Orange county's most productive citrus and walnut acreage. It is a fitting tribute to modern schools and modern education. A student body of 250 children drawn from the area of 125 square miles which embraces the famous old Spanish grant, now known as the Irvine Ranch, represents many families deriving their living from the fertile acres of this historic ranch. Four large school busses, ranging in capacity from 20 to 40 persons, make it possible for boys and girls from any point in this district to reach school during all the year. Without this service many would be denied the privilege of an education. In a few isolated cases, where the student lives too far off the bus route, he is given a grant to drive his own car.

Oceanside-Carlsbad Union High School district comprises 16 school districts. Five busses owned by the district cover 163 miles daily, more than half of which is over dirt roads. The bus routes vary in length from more than 32 miles to less than 14 miles. Because the high-school plant is located in Oceanside, in the extreme northwest corner of the union district, one bus travels more than 65 miles daily in making a round trip from the southern part of the district. The bus fleet of 5 vehicles consists of 3 modern 50-passenger stages, a 25-passenger bus, and a 7-passenger touring car. The three large busses, forming the backbone of the system, are all equipped with safety glass and upholstered seats. The 25-passenger bus serves as a feeder to one of the big busses, going out from Solano Beach, through Rancho Santa Fe, and back to Encinitas, where the pupils are transferred to the large bus. Another large bus is driven up the Coast Highway from Del Mar to Oceanside. The third large bus serves the Vista and Carlsbad territory. In spite of the long trips necessary, but 11 pupils are en route before 7:40 a.m., and only 7 are delivered at their homes after 5 p.m. Only 6 pupils are en route longer than one hour. Of the 180 pupils served by the busses, only 35 live farther than half a mile from a bus stop, and only 10 live beyond walking distance. All busses arrive and leave within 15 minutes of the opening and closing of school. Shelter for the busses at the high school consists of an open palm-leaf covered shed. All busses are stored in the evening at the ends of the routes, eliminating both a long trip empty and large storage facilities on the high-school grounds.

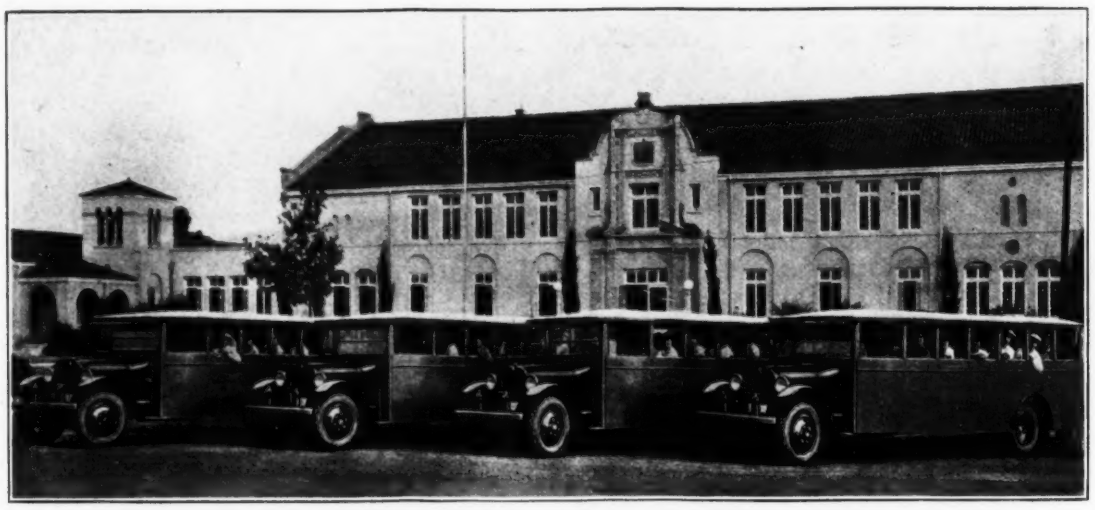


STUDENTS' CARS PARKED AT THE HIGH SCHOOL IN SAN DIEGO, CALIF.

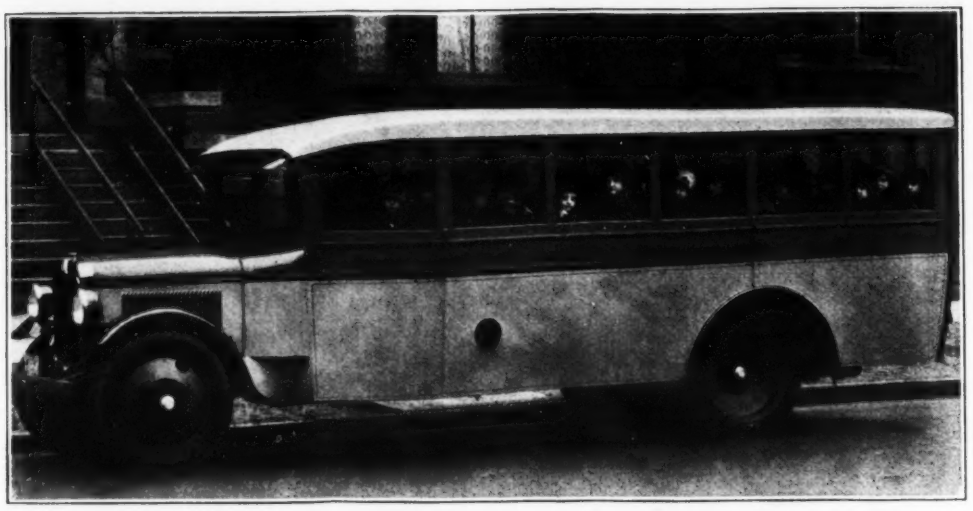
INSTRUCTORS' CARS PARKED BEFORE THE BURLINGAME HIGH SCHOOL, BURLINGAME, CALIF.

Central Union High School, El Centro, owns 8 busses and 2 touring cars for transporting pupils to and from school. All repairwork is done in the school shop, so that the expense of keeping the busses in repair is reduced to a very small cost. Three of the busses have run for more than six years, and are still in first-class condition. About 140 pupils are served daily by the transportation system, at a cost of 18½ cents per pupil per day. This includes cost of operating, driver's pay, etc.

The Grossmont Union High School serves a highly scattered and somewhat mountainous territory, including 14 school districts, and comprising approximately 200 square miles. The enrollment of the school is approximately 500, and the number of pupils carried by the bus system is 375. Six busses are used, making 9 runs twice daily. The longest run is a 38-mile round trip. The monthly mileage for these



A FLEET OF STANDARD SCHOOL BUSSES IS USED BY THE FOWLER UNION HIGH SCHOOL, FOWLER, CALIF.



THE NEWEST TYPE OF SCHOOL BUS WITH SEATING ARRANGEMENT SUITED TO CHILDREN'S USE.

busses is from 600 to 855 per bus; total mileage 4,165 miles per month. The cost per mile per pupil is less than 1 cent. The maintenance is cared for in the shops at the school.

The Sweetwater Union High School district, National City, Calif., covers a territory reaching from San Diego's southern boundary to the Mexican border, a distance of about 11 miles. The territory is from 6 to 7 miles wide, making an area of approximately 66 square miles. Busses are depended upon for the transportation of children.

The Salinas Union High School district is composed of 15 elementary-school districts, and covers an area of 66 square miles. The majority of students in this institution depend upon motor transportation to get to and from school. Due to the fact that this is a farming community, they live at points that are a considerable distance from the school. While a great many of the students utilize their personal cars, the school itself operates 5 busses. These busses travel approximately 56 miles each per day, carrying an average of 210 pupils.

The motor bus has made it possible for communities of this type to concentrate their school funds and build more up-to-date school buildings at centralized points, rather than have these funds distributed in the many small schools formerly necessary on account of lack of transportation. The centralizing of funds and concentrating of school buildings at a point in the community have made it possible for these schools to render students more efficient services due to their being equipped with more modern equipment, better housing conditions, more beautiful buildings and surroundings, and last,

(Continued on Page 143)

A Study of Vision of School Children

The need for better and more thorough examination of the eyes of school children, particularly between the ages of 12 to 16, is revealed in a special study of the vision of school children recently made by Dr. G. A. Kempf, surgeon, Dr. B. L. Jarman, acting assistant surgeon, and S. D. Collins, associate statistician of the U. S. Public Health Service. The study throws light on the rapidity with which small defects grow and indicates that attention should be given to children with no apparent defect. Efforts should be directed to the removal of defects which, undetected and unremoved, may prove a detriment later in life.

The study of the vision of children, which was carried on in the District of Columbia, was conducted with the following immediate purposes in mind: (1) To determine the number of refractive errors in school children by using a cycloplegic and employing the services of an ophthalmologist; (2) to determine, if possible, at what ages myopia tends to develop, and the progress of the condition; (3) to determine what changes may take place in the eyeball during the process of growth of the school child.

The group of 1,860 children examined with the cycloplegic (a drug used in the form of drops to produce temporary paralysis of the eyeball muscles) was checked against 963 Washington children whose parents had not consented to the use of this device. Only Snellen chart readings, at 20 ft., were considered for both groups. The Snellen readings of 9,245 children from schools in South Carolina, Maryland, Delaware, and New York were also considered.

In the Washington control group, the number of children who read 20-20 (clear normal sight at 20 ft. distance) was slightly higher than in either the Washington test group or the scattered groups. On the other hand, the percentage of children who read 20-30 was slightly higher in the two latter groups. It was concluded that the power of accommodation of the eyes in the young is so great that the simple Snellen readings do not reveal all children with hyperopia (farsightedness), while the children with myopia (nearsightedness), are almost invariably discovered by this method.

The results of the tests showed that before the cycloplegic, 66 per cent of all the children could read 20-20 or better; 22 per cent could read 20-30; 5 per cent read 20-40; 7 per cent read 20-50 or worse. The visual tests after the cycloplegic showed a great change. Those who read 20-20 or better dropped to 21 per cent; the 20-30 group showed little change, dropping to 20 per cent; the group reading 20-40 increased to 16 per cent; the group reading 20-50 or worse showed an astounding increase from 7 per cent to 43 per cent. It was shown that before the cycloplegic, 66 per cent read 20-20 or better, whereas after its use, only 21 per cent could read 20-20 or better.

The important practical points for consideration are the increase in the number of children whose poor vision was revealed after the cycloplegic had been used. The group reading 20-50 or worse, increased from 7 per cent to 43 per cent. Nearly one fourth of the 66 per cent who read 20-20 or better before the cycloplegic fell to 20-70 or worse, when the accommodation of the eyeball was temporarily paralyzed. Such children would pass with normal vision on the simple Snellen test.

The most frequent visual defect found was simple hyperopia, which reached 63 per cent. The astigmatic group included all types, but of this 28 per cent, there was 25 per cent of hyperopic astigmatism.

Again, it was shown that the rate of change is very marked in myopia between 7 and 12 years of age. The proportion of children with myopia is four or five times as great among children 12 to 16 years as among children 6 to 7 years of age. This shows the necessity for careful observation of the vision of children between the seventh and twelfth years in order to detect these cases before the condition has advanced.

The study brought out the fact that the hyperopic (farsighted) eye is rarely found with the Snellen test, and then only the very severe types are revealed. This shows the importance of a careful eye examination, which requires the use of a cycloplegic. A child who can read only 20-70 or 20-100 after the use of the cycloplegic should be under the care of a competent eye physician, who can keep a record of successive eye examinations and properly advise such a case. Children with errors should be rechecked from time to time. Small errors are often more difficult to discover than larger ones. This is especially true of astigmatism and a cycloplegic is necessary for this purpose. Where a defect in vision is found, it does not necessarily mean glasses, but such a child should be observed from time to time, so that an accurate check may be kept on the progress of the defect.

The study indicated that, of the 66 per cent of eyes which read 20-20 or better and appeared normal, 32 per cent read 20-50 or worse when a cycloplegic is used, showing that many eyes work under a handicap. If these children see clearly, excessive strain is required for them to do so. This in time will not only affect their vision, but the nervous system will be involved.

In the opinion of the U. S. Public Health Service, the results of this study serve to emphasize the necessity for regular annual examinations of the eyes of children. It is important to look for defects in the apparently normal eye, because a defect noted in time may be remedied before great harm is done. It is recommended that more time and thought be given to vision and its correction at the proper time, instead of waiting for symtoms to present themselves.

Prosperity, Population, and Public Education

Frank M. Phillips, Washington, D. C.

It is not the purpose of this article to make any boasts about our national wealth, but published figures show that the per-capita wealth in the United States has been multiplied by ten in the past 70 years, and by about three since 1900. It amounts now to a little over $3,000 for each person. Along with this increase in wealth have come some increases in expenditures as well. We spend annually about two billion dollars upon the public schools, a like amount for tobacco, twice that amount for automobiles, about one half that amount on soft drinks, another half on theaters, fully a third the amount for candy, and one fourth for jewelry, musical instruments, and sporting goods. The changes in the purchasing power of the dollar have probably affected both incomes and expenditures alike.

While wealth and expenditures for luxuries have been increasing, the birth rate has steadily declined. Reliable figures do not go back beyond 1915, but in that year the birth rate in the registration area was 25.1 per 1,000 persons. In 1927 the rate was 20.4, a reduction of about 20 per cent. France maintains a stationary population with a birth rate of 19. Ours is below that now in 15 states. Immigration, although restricted, adds slowly to the adult population, while a declining birth rate tends to make proportionately fewer children.

These few statements will serve to introduce the following tables and graphs: Table 1 gives the number of registered passenger cars by years from 1895 to and including 1927, the number of pupils in average daily attendance in public schools for the same years, the birth rate in the registration area of the United States from 1915 to date, and the per-capita wealth of this country as computed for stated years since 1858. (The registration area contains now nearly 80 per cent of the total population.) Figure 1 shows graphically the number of passenger cars,

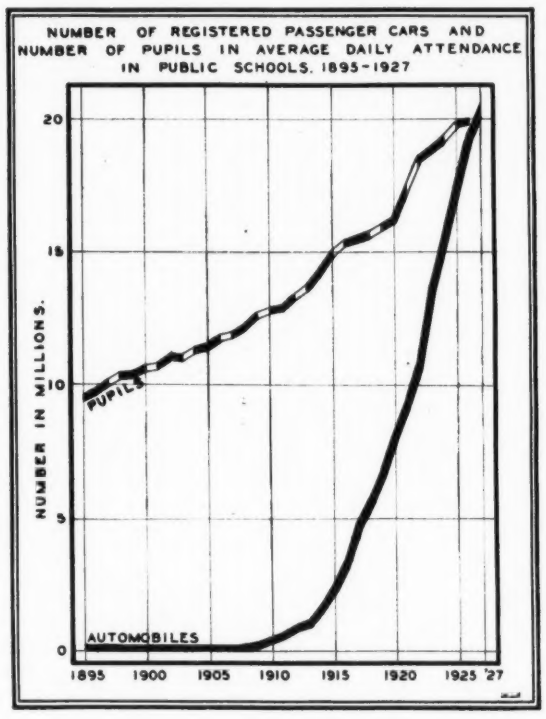


FIG. 1

and the number of pupils in attendance from 1895 to date. Figure 2 shows the changes in the birth rate from 1915 to 1927. Table 2 shows

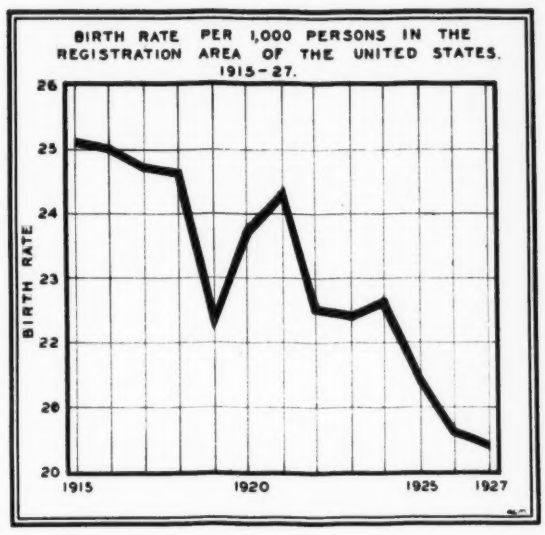


FIG. 2

the birth rate, the per-capita wealth, the number of registered motor vehicles, and the public-school enrollment by states for the latest year for which data are available. Figure 3 shows for 40 states, the birth rate (states arrayed for this item), and the per-capita wealth for the same states. (The data are smoothed for this item.) Table 3 shows the estimated number of children in the United States old enough to enter school for the first time, for the years specified.

If the average price of a car be taken at $825, the registered cars must have cost someone

TABLE I
Birth Rate, Per-Capita Wealth, Number of Passenger Cars, and Number of Pupils in Average Daily Attendance in Public Schools 1895-1927

Year	1 Number of Registered Passenger Cars	2 Number of Pupils in Average Daily Attendance in Public Schools	3 Birth Rate per 1,000	4 Per-Capita Wealth
1895	4	9,548,722		
1896	16	9,781,475		
1897	90	10,052,554		
1898	800	10,356,458		
1899	3,200	10,389,407		
1900	8,000	10,632,772		$1,165
1901	14,800	10,716,094		
1902	23,000	11,064,164		
1903	32,920	11,054,502		
1904	54,590	11,318,256		1,318
1905	77,400	11,481,531		
1906	105,900	11,817,834		
1907	140,300	11,925,672		
1908	194,400	12,154,172		
1909	305,950	12,684,837		
1910	458,500	12,827,307		
1911	619,500	12,871,990		
1912	902,600	13,302,303		1,950
1913	1,194,262	13,613,656		
1914	1,625,739	14,216,459		
1915	2,309,666	14,985,900	25.1	
1916	3,297,996	15,358,927	25.0	
1917	4,657,340	no data	24.7	
1918	5,621,617	15,548,914	24.6	
1919	6,771,074	no data	22.3	
1920	8,225,859	16,150,035	23.7	
1921	9,346,195	no data	24.3	
1922	10,864,128	18,432,213	22.5	2,918
1923	13,479,608	no data	22.4	
1924	15,460,649	19,132,451	22.6	
1925	17,512,638	19,767,815	21.4	3,079
1926	19,237,171	19,855,881	20.6	
1927	20,230,429	no data	20.4	

[1]National Automobile Chamber of Commerce.
[2]Bureau of Education.
[3]Bureau of the Census.
[4]From World Almanac. Data for 1858, $308; 1860, $514; 1870, $624; 1880, $870; 1890, $1,036.

TABLE II
Birth Rate, Per-Capita Wealth, Number of Registered Motor Cars, and Enrollment in Public Schools, by States

STATE	Birth Rate per 1,000, 1927 1	Per-Capita Wealth, 1925 2	Number of of Registered Motor Vehicles, 1927 3	Number of Pupils Enrolled in Public Schools, 1926 4
United States	20.4	$3,079	23,238,332	24,741,468
Alabama	25.8	1,306	241,984	590,405
Arizona	18.6	3,584	81,047	81,036
Arkansas	20.1	1,506	206,568	496,927
California	18.9	4,000	1,693,195	1,016,473
Colorado	....	3,336	268,026	236,872
Connecticut	17.6	3,842	282,263	320,463
Delaware	17.5	2,979	46,797	39,297
District of Columbia [5]	17.7	3,568	125,289	73,495
Florida	25.0	2,239	397,360	342,643
Georgia	....	1,403	300,507	689,230
Idaho	17.2	3,506	102,546	117,656
Illinois	18.3	3,385	1,438,985	1,331,329
Indiana	19.8	3,145	812,594	635,227
Iowa	18.3	4,646	702,401	556,270
Kansas	19.0	3,698	501,901	424,961
Kentucky	24.2	1,566	285,099	575,482
Louisiana	....	1,995	255,000	395,007
Maine	20.6	2,877	158,438	148,596
Maryland	20.3	2,851	271,145	263,249
Massachusetts [5]	20.8	3,546	821,107	755,832
Michigan	22.3	3,031	1,156,344	871,083
Minnesota	18.9	3,584	646,682	549,899
Mississippi	27.5	1,355	227,103	572,986
Missouri	18.9	3,184	682,419	723,167
Montana	13.6	3,728	112,201	116,990
Nebraska	20.0	4,185	373,912	326,934
Nevada	....	7,299	25,776	15,614
New Hampshire	19.3	3,449	720,408	735,146
New Jersey	19.4	3,691	96,000	71,785
New Mexico	....	2,461	60,345	87,687
New York	19.9	3,593	1,899,429	1,967,447
North Carolina	28.8	1,879	431,282	818,739
North Dakota	21.6	3,996	160,701	172,818
Ohio	18.3	3,233	1,570,418	1,255,323
Oklahoma	....	1,842	484,771	648,946
Oregon	16.4	4,374	245,705	181,891
Pennsylvania	21.6	3,389	1,583,763	1,849,163
Rhode Island	19.5	3,192	117,186	111,428
South Carolina [5]	26.9	1,499	199,629	483,269
South Dakota	....	4,900	169,552	164,551
Tennessee	21.9	1,976	294,567	653,876
Texas	....	2,064	1,115,899	1,210,127
Utah [5]	27.3	3,429	93,974	141,788
Vermont	19.9	2,639	79,413	64,046
Virginia	22.9	2,228	326,187	551,475
Washington	14.9	3,727	384,583	329,288
West Virginia	26.4	3,211	237,210	382,830
Wisconsin	19.6	3,087	698,399	542,584
Wyoming	18.6	4,961	52,222	50,138

[1]Bureau of the Census.
[2]National Industrial Conference Board.
[3]American Automobile Association.
[4]Bureau of Education.
[5]Birth rate for 1925.

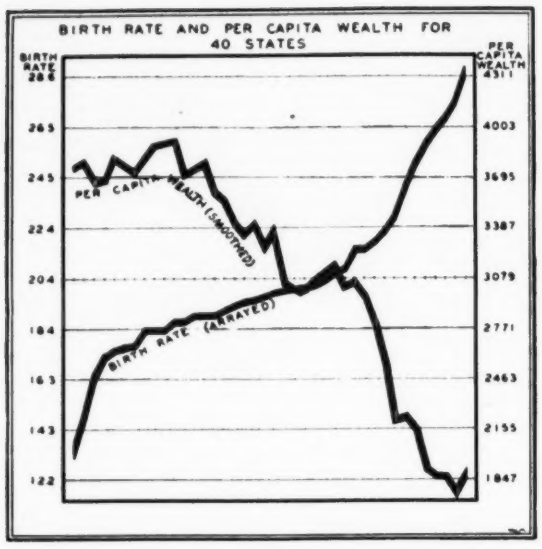


FIG. 3

more than $19,000,000,000. Public-school property is valued at $4,676,000,000.

Since 1895 public-school attendance has a little more than doubled. During this same time the number of passenger cars has grown from practically zero to more than 20,000,000. We now have more passenger cars than we have children in school. It is possible to place each school pupil in an automobile, and have a few cars left over for good measure. Almost any city can haul its entire population in its automobiles and busses. There are between four and five automobile seats for each schoolhouse seat.

We have no quarrel with the automobile. It is used for both business and pleasure, is an important item in transportation, and is in its use an educational force. The rapid and continuous growth of the industry is an evidence of our prosperity, and of our general intelligence. The automobile has contributed to our prosperity and, perhaps also, to our intelligence.

While the automobile industry has been on the increase, the general birth rate has been on the decrease. The fact that these changes take place simultaneously does not necessarily mean that either one is a cause or an effect of the other. It might be well to mention, however, that those states with a high birth rate generally have a relatively low number of automobiles. There must be something in the general nature of things that prompts us to get the most possible out of life, even at the expense of propagating the race.

A reduction in the birth rate must in time affect enrollments in the early grades of our schools. The first grade in 1918 enrolled 4,281,013, and in 1926 it enrolled 3,923,492. It is difficult to credit the schools with an improvement in promotion rates from the first grade to the extent of 360,000 in eight years. Moreover, the computations in Table 3 indicate that there is little, if any, increase in the number of children of the early school ages during this period. It takes a great deal of courage to make estimates of this nature almost on the eve of the 1930 census, but it takes no prophet to recognize the tendencies. Smaller families are general, and the drop in the birth rate seems to be more than a temporary after-war condition.

TABLE III

Actual or Estimated Number of Six-Year-Old Children in the United States, for the Years Specified

Year	Number of Six-Year-Olds
1900	1,832,613
1910	2,033,834
1920	2,338,315
1926	2,322,448
1927	2,453,585
1928	2,300,678
1929	2,325,702
1930	2,405,506

The fact that the birth rate has been on the decline while per-capita wealth has been increasing, does not of itself indicate any close degree of correlation. A study of the individual states shows that those with a low birth rate generally have a high per-capita wealth, and vice versa. It is a mistake to charge the high birth rate of the south to the colored race, because the rate for the two groups is very much alike. If birth rates for white people only are used, the results do not undergo any material change. If it were possible to have a figure for per-capita wealth for white people only, the relationship might not appear to be so well defined. At any rate, we are getting wiser.

Method of Figuring Normal Enrollment Capacity of a Junior High School

G. E. Irons, Assistant Commissioner in Charge of Building Programs and School Boundaries, Cleveland, Ohio

A. In General

This method of computation is based upon a detailed study of the actual practices in several junior high schools in Cleveland, having from 1,200 to 1,800 pupils enrolled. It utilizes averages based upon the observed conditions, and takes into account the distribution of pupils among the various subjects, the curriculum of each grade division, and problems of scheduling.

The method relies upon the average class section as the basic unit. Although a small cooking room, for example, is often assumed to have a smaller pupil capacity than a large cooking room, the fact is that the average classes accommodated in each such special room will probably be about the same and will depend upon the general average size of classes in the building, as prescribed by the class schedule.

Rooms which are too small may be harmful to educational efficiency, but, as a rule, they do not affect the housing capacity of the building unless *all* the rooms in the building are materially larger or smaller than the accepted standard sizes.

Thus, a building in which all classrooms seat 40 or more pupils each and all shops accommodate 32 or more pupils each, will house more pupils than another building in which all classrooms seat 30 pupils each and all shops accommodate 24 pupils each. This is because a principal can schedule larger class sections throughout the former building than he can in the latter.

B. Size of Classrooms

In the study of typical buildings, it was found that the average size of academic classes, even in a crowded school, was only 33.8. This raises a question as to the necessity of equipping *all* classrooms to seat 40 or 42 pupils. Obviously, some classes will be much larger than 33.8, but others must be smaller than this average. There is a field for special investigation of the seating schedule. Apparently, there should be considerable variation in the size of classrooms to secure fullest economy of space.

C. Method of Calculating "Normal Working Capacity" of a Junior High School Operating with a 9-Period Day and with the Cleveland Curriculum

1. Assign as the capacity of each room the average size class which investigation has shown to be typical of the activity going on in that room. It has been found that, with the present curriculum, the following averages will apply to a Cleveland junior high school:

Classrooms	33 each
Typewriting and commercial rooms	32 each
General science	32 each
Art	30 each
Mechanical drawing	28 each
Sewing, cooking, woodworking, metal, and printing shops	25 each
Music room	50
If regular music room is available.	
Auditorium (as study hall)	See 3 below
Lunchroom (as study hall)	See 3 below
Study hall	See 3 below
Library	See 3 below
Boys' gymnasium	50
Girls' gymnasium	50

2. Add up these assigned capacities, not including auditorium, lunchroom, library, or study hall, and get a total.

3. The number of pupils in study halls every period should not be more than one fourth of the total enrollment, with a 9-period school day in use. The capacity assigned in study halls should, therefore, be arbitrarily set at approximately one fourth of the building capacity. Since we do not yet know the total capacity, we must use the total secured in "2" above and apply a factor. This factor is 28 per cent.

Thus: 28% × 2 = total capacity to be assigned to special study groups—wherever located.

4. The total study group may now be broken up and assigned to the auditorium, lunchroom, library, and regular study hall in any proportion which seems reasonable.

5. Adding up the total in "2" and the study group, the resulting total is the maximum capacity of the building at any one period, *when every room is in use.*

6. It is impossible to schedule the many classes in different subjects so that every room is in use all of the time. From actual data secured from junior high schools and from other sources, it is found that the efficiency of use of the junior-high-school building can hardly be higher than 88 per cent under any circumstances.

7. The total obtained by "5" above is, therefore, multiplied by 88 per cent and the result is the normal maximum working capacity of the building.

8. The normal working capacity may be exceeded in actual operation in one of several ways. If emergency space can be found to schedule more academic classes than the regular classrooms accommodate, it is likely that the shops can be scheduled to take care of the additional number. This is because the use of shops, as such, is not interchangeable at will, and a schedule which theoretically requires only one half of a full-time printshop does not actually eliminate one half the room. There is either one shop or none. If there is one, pupils may be added in printing until the shop is fully scheduled.

9. Then again, the alert principal may enlarge his enrollment considerably by utilizing the idle time of such a printshop to house certain academic recitations.

10. The enrollment may also be increased above the normal working capacity, as derived above, if the principal crowds more "study periods" into the day and if he uses his auditorium as a study hall. There is certainly a limit to the value of "study periods," however, and auditoriums are generally found to be unsatisfactory as study halls, particularly if they are crowded.

11. "Normal working capacity" may, therefore, be defined as that number of pupils which

(Concluded on Page 134)

Court Decisions Affecting the Enforcement of Compulsory Education

C. C. Liebler, Director of Guidance, Port Arthur, Texas

Compulsory education may be said to have begun in the United States in 1642[1] when the Colony of Massachusetts passed the now famous act requiring parents to train their children in religion, in "imploy," and in the rudiments of reading and writing. Five years later, this act was amended to require that parents should teach their children, or have them taught under pain of severe penalties. Towns with fifty or more families were required to set up a school and to pay the master by public taxation. Thus, at the very beginning of our national existence, parents were compelled by law either to teach their children themselves or to have the instruction done by others. Furthermore, this duty of parents was to be enforced by the most severe penalties, including loss of custody and control of the child if the parent was negligent.

Compulsory education, however, for indentured children had existed long before. Indeed, perhaps before the time of Babylon, masters of apprentices were required by law to teach such children not only the handicraft itself, but in some instances reading, writing, and arithmetic, as well as morals and manners, under pain of various penalties.[2] Since such regulations applied only to apprentices and indentured children, they had relatively little application to the education of girls, who, unless paupers or orphans, were seldom bound out.

In 1650 the Colony of Connecticut[3] followed the example of Massachusetts, taking her law almost verbatim from the latter colony. Thus matters stood until 1853, when New York adopted what is often referred to as the first compulsory-education law. The New York law,[4] of 1853, however, in reality merely established local "reform schools" and should be considered more as a forerunner of the modern parental school than as the first modern compulsory-education law. Gradually, other states adopted compulsory-education provisions, so that by 1918 the roll of states was completed by enactments in Mississippi, Florida, and South Carolina, although in these states the matter was made a question of local option.[5]

The constitutionality of compulsory education is beyond dispute and is not an invasion of the natural rights of parents to control the education of their children,[6] but such laws are to be given a reasonable interpretation.[7] In Myers v. Nebraska (262 U. S. 390 [1923]), Mr. Justice McReynolds, who delivered the opinion of the court, expressly stated that "the power of the state to compel attendance at some school . . . is not questioned." Furthermore, there is a tendency for the courts to enforce the legislative extension of the compulsory-education period beyond the elementary grades. This point was especially upheld in State v. O'Dell (187 Ind. 84, 118 N. E. 529 [1918]). The defendant was charged with failing to send his 12-year-old daughter to school as required by law. His defense was that she had completed the eighth grade and, therefore, could not be forced to attend any longer. Chief Justice Spencer, in delivering the opinion of the court, said in part: "Appellee contends, and the trial court held, that, as his child had satisfactorily completed the study of such branches of learning as are required to be taught in the grade schools, the purpose of the statutes has been fulfilled and she could not be compelled to receive further instruction. This assertion rests, in part, on the false premise that the term common schools, as used in the statutes, has reference only to the grade or elementary school, whereas, by express statutory definition, the term, which is synonymous with public schools, is made to include high school as well."

High-School Attendance

In another Indiana case (Miller v. State, 77 Ind. App. 611 [1922]), it was held that under the statute high-school attendance was required between the ages of 7 and 16, if the child had completed the eighth grade and was otherwise eligible to attend school. In this instance the parent endeavored to comply with the law by sending his child to another elementary school, but this did not save him from the penalty of the law.

In People v. Eckerold (211 N. Y., 386 [1911]; 105 N. E. 670; L. R. A. 1915 D. 223 affg. [1914], 160 [N. Y.] App. Div. 930), it was held that, when vaccination is a prerequisite to school attendance and a parent sends his child to school unvaccinated and the school authorities refuse it permission to attend, if the parent refuses to permit the child to attend upon other instruction as required, such parent is subject to the penalty provided by law. The court declared that the ruling of the board of education requiring vaccination before admitting children to school was in accord with the statutes and not so unusual or oppressive under ordinary conditions that a parent should be allowed to make his unwillingness to comply therewith a basis for not sending his children to school.

In considering the question of harmonizing the statutes on the same general subject, the court remarked that, if it had been the intention of the legislature to exempt a child for this reason (refusing to be vaccinated), the legislature would have expressly said so. "It does not require much of prophecy to foresee what will follow a contrary construction of the statutes. . . . If a parent may escape all obligation under the statutes requiring him to send his children to school by simply alleging that he does not believe in vaccination, the policy of the state to give some education to all children . . . will become more or less of a farce." The court also pointed out that the defendant could have sent his child to another school where the vaccination requirement was not in force, recognizing that such action might have caused the parent additional expense.

People v. Pierson (176 N. Y. 201) would seem to give additional weight to the decision in People v. Eckerold, for the court declared that "no man can be permitted to set up his religious belief as a defense to the commission of an act which is in plain violation of the law of the state." The defendant's 2-year-old child had died of catarrhal pneumonia and the parent was charged with criminal neglect because he had failed to obtain medical assistance for the child or to allow such assistance to be given, alleging as a defense his belief in Divine healing.[8]

Vaccination and Attendance

In Shappee v. Curtis (142 N. Y. App. Div. 155 [1911]), a similar decision was handed down. It seems that the mother of a 10-year-old girl, who was excluded from school because she was not vaccinated, refused to permit the child to be vaccinated yet continued to send the child to the schoolhouse for several days, although she was not admitted. The attendance officer filed an information against the mother, alleging failure to cause the child to attend school. Whereupon the mother brought an action against the attendance officer for malicious prosecution. But the court held that there was probable cause to believe the mother guilty of a violation of the compulsory-education law and that she could not recover in an action for malicious prosecution against the attendance officer for "laying the information," although the warrant charged the parent with having failed for nine days to send the child to school. Said the court: "It, therefore, can be said as a matter of law, that the defendant (the attendance officer) had probable cause to believe the plaintiff guilty of the crime charged and that he was fully justified in instituting the proceedings. . . . In other words, that the evidence showed not the want of a probable cause, but the existence of a real cause."

In the matter of Viemeister (179 N. Y. 235), it was decided that the requirement of vaccination is not unconstitutional and not an abridgment of the right to send children to school. This point was also established in Jacobson v. Mississippi (197 U. S. 11), but in spite of the favorable decisions quoted, it is probably correct to conclude that these rulings are rather advanced and that the weight of opinion is on the other side. It will be noted that all of the cases just mentioned, with one exception, are New York cases. An Ohio case (State v. Turney, 12 O. C. C. [N. S.] 33, 210 C. D. 222), reflects a contrary opinion. The court in this instance held that a parent who sends his child to a public school and is willing to continue to do so, but the child is excluded for failure to comply with a rule of the board of education requiring vaccination, is not liable to prosecution. A similar conclusion was reached in State *ex rel.* O'Bannon v. Cole (220 Mo. 697, 119 S. W. 424, 22 L. R. A. [N. S.] 986 [1909]), the court holding that parents of school children are not guilty of violating the compulsory school act in refusing to have their children vaccinated in accordance with a rule of the directors which was a condition precedent to attending school during a smallpox epidemic.

Truancy is an offense unknown to common law, and the elements of this offense must be found in some ordinance, by-law, or statute,[9] and is in the nature of a police regulation.[10] At common law, control of parent over child extended to its education, except where modified by statutory or organic law.[11] Corresponding to this right was the duty of the parent at common law to educate his child suitable to its station in life, although there was no way to enforce this duty.[12] (However, the courts have long taken cognizance of the rights of a child *to prevent it from becoming a public charge,*[13] but otherwise, so long as the parent did not put the child to death too suddenly, very little interest was manifest about its welfare. Of course, if the parent killed the offspring outright, that was murder and the crime was punishable.) The common-law duty of the parent to support and educate his child gave the parent a common-law right to supervise the child's education

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[1] Cubberley, Ellwood P., Public Education in the United States, Houghton Mifflin Co., New York, 1919, p. 17. See also Jernegan, Marcus W., Compulsory Education in the American Colonies, School Review, December, 1918.

[2] Douglas, Paul H., American Apprenticeship and Industrial Education, Longmans, Green & Co., New York, 1921, pp. 13, 14.

[3] See Bulletin No. 11, 1920, U. S. Bureau of Education, Table No. 18, for date of initial enactment of compulsory-education laws in each state.

[4] Session Laws, 1853, 76th Legislature, Chap. 185.

[5] State Compulsory School Attendance Standards Affecting the Employment of Minors, Chart Series No. 2, 1921, Washington, U. S. Children's Bureau.

[6] State v. Bailey (1901), 157 Ind. 324; 63 N. E. 730; 59 L. R. A. 435. As early as 1892 (*ex parte* Liddell, 29 Pacific 251), the courts held that the power of the state to make and enforce provisions for compulsory education of all children within its borders is unquestioned.

[7] State v. Hall, 74 N. H. 61; 64 Atl. 1102 (1906).

[8] See also Oakley v. Jackson (1914), 1 K. B. 216, 110 L. T. N. S. 41, 83 L. J. K. B. 712.

[9] Cushing v. Friendship, 89 Me. 525, 36 Atlantic 1001 (1897).

[10] State v. McCaffrey, 69 Vt. 85, 37 Atl. 234 (1896).

[11] Garvin County School Board, District No. 18, v. Thompson, 24 Okla. 1, 103 Pacific 578, 138 A. S. R. 861, 19 Ann. Cas. 1188, 24 L. R. A. (N.S.) 221.

[12] Board of Education v. Purse, 101 Ga. 422, 28 S. E. 896, 65 A. S. R. 312, 41 L. R. A. 593.

[13] In re Hypert's Estate, 12 Lancaster Barbour 68 (N. Y.); Bennett v. Bennett, 13 N. J. Eq. 114; English v. English, 32 N. J. Eq. 738.

even when done by others,[14] and this right is superior to the school's right.[15]

Parental Rights Strictly Interpreted

The strict interpretation which courts formerly placed on parental rights and duties is reflected in London School Board v. Jackson (7 Q. B. D. 502; 45 J. P. 750; 50 L. J., M. C. 134; 30 Whly. Pep. 47 [1880]). In this case, the question of who is responsible for the child's failure to attend school arose. The mother of the child was a widow and pleaded that she was very poor, and was unable to maintain her offspring, Ada Jackson, a girl about 14 years of age. She had sent Ada to live with an aunt in another city. Sometimes the child lived with still another aunt. The lower court maintained that the person who had custody of the child was liable and not the mother, as the law did not contemplate that both should be responsible. The higher court held, however, that, notwithstanding the fact that the child was not residing with its parent, but with a relative, the clause which declared that the term parent shall include "guardian and every person who is liable to maintain or has custody of any child does not affect the primary responsibility of the parent if there be one." Thus, in this case the higher court held the mother responsible, all three judges concurring.

That the burden is on the defendant to show that he is one of the cases exempted by statute, was held in State v. McCaffrey (69 Vt. 85, 37 Atl. 234 [1896]).[16] The statutes prescribed that certain children should attend school for 26 continuous weeks from the beginning of the term. Justice Tyler, in delivering the opinion of the court, said: "The offer of the respondent to show that he intended to send his son to an academy for a period of time which, with the time that he had attended the district school, would make 26 continuous weeks, was properly excluded. . . . The offense was committed . . . whenever it was established that the child was not in attendance . . . in such a manner as would make 26 continuous weeks from the beginning of the term." The respondent (McCaffrey) contended that to establish the offense it was incumbent upon the state to negative exceptions in the statute. But the court held that exceptions must be negatived only where they are descriptive of the offense or define it; but that, where they afford the matter of excuse only and do not define or qualify the offense, exceptions are not required to be negatived by the state.

Especial note should be taken that in the case to which reference has just been made, the court was guided by a statute expressly specifying that attendance should be continuous for a stipulated number of weeks. Where the statutes do not expressly state that attendance must be continuous and merely require attendance for a certain period such as "100 days from the beginning of the term," (when there are more than 100 days in the term) "two thirds of the term," "80 days," and the like, unless it can be clearly shown that the legislative intent was to make such attendance consecutive, any effort to enforce consecutive attendance is without legal precedent. The same may be said of efforts to compel attendance from the beginning of the term, where the statutes require attendance for a given time, such as "75 days." Attendance the last 75 days or any 75 days during the term fully complies with the law.

Ill health is generally a statutory ground for excusing a child from school attendance, and a parent will not be convicted under such provisions if he withdraws his child in good faith.[17] In State v. Jackson (71 N. H. 552; 53 Atl. 1021; 60 L. R. A. 739 [1902]), it was held that "to require a parent whose child was confined in bed during the year to apply for and secure an excuse, would be an idle formality."

Attendance at Private Schools

It should be noted, however, that compulsory education does not mean, exclusively, attendance at public schools. That question came up in the famous Oregon case[18] which grew out of an Oregon statute which, in effect, sought to compel all children between 8 and 16 years of age to attend only public elementary schools. The United States Supreme Court sustained the Federal District Court of Oregon which granted an injunction restraining the governor from enforcing the law on the ground that it constituted an unreasonable interference with the rights of the parents to direct the education of their children, denied equal protection of the laws and took private property without just compensation.

But just what constitutes sufficient schooling in lieu of public education varies greatly in the various states. In State v. Cournort (124 Pac. 910 [1912]), the court said: "We do not think that the giving of instruction by a parent to a child in all that is taught in the public schools, is within the meaning of the law to attend a private school." (The parent's defense was that he was an experienced and capable teacher. This the court did not dispute.) The evidence seemed to indicate to the court that the appellant maintained no private school, although the court conceded that mere numbers did not determine, for the children were seen playing around the yard during school hours. It was noted that the parent took the children out of school without first obtaining the permission of the superintendent of schools of the district.

In State v. Peterman (32 Ind. App. 665; 70 N. E. 550 [1904]), it was held that a child taught by a competent teacher fulfills the requirement of the law requiring attendance at a "public, private, or parochial school." Here the court said that bringing a teacher into a home amounts to establishing a private school, even though there is but one child, for numbers do not make a "place where instruction is imparted any more or less a school." The teacher when employed had not held a license for a year, although the evidence tended to show that it was not because of incompetency. Approximately the same time schedule was followed by the private teacher in the home as in the public schools. "A legally qualified governess or private teacher" need not be a holder of a certificate to teach to comply with the law, according to the ruling in Commonwealth v. McCullough (28 Pa. Co. Ct. 177). It would seem that the court would be rather severely taxed to set up a definite standard for determining, except subjectively, just who is a "legally qualified governess or private teacher."

In general, instruction in the branches taught in the public schools, for a sufficient length of time daily, usually fulfills the requirement for instruction in lieu of public-school attendance.[19] Where the statutes require attendance at public school, unless under efficient instruction elsewhere, private instruction need not be identical in subjects or in standards to that in public schools.[20] Thus, in Bevan v. Shears (2 K. B. 936; Ann. Cas. 1912 A. 370 [1911]), it was held that a finding that children are being efficiently instructed in some manner other than in a regularly established public school, is sufficient for dismissal of complaint without inquiring whether the instruction is the same as, and equal to, that in the public schools.[21] The remedy for this, of course, is for the state to certificate all teachers, both public and private, and to allow no one, who does not hold a valid certificate, to teach in any type of school.

[14]People v. Omstead, 27 Barbour (N.Y.) 9.
[15]Garvin County School Board, District No. 18, v. Thompson, 24 Okla. 1; 103 Pacific 578; 138 A. S. R. 861; 19 Ann. Cas. 1188; 24 L. R. A. (N.S.) 221. See State v. Mizner, 50 Ia. 145 (1878), for apparently opposite ruling. Also Morrow v. Wood, 35 Wis. 59.
[16]See also Cooper v. State, 47 Ind. 61 (1874); Commonwealth v. Roberts, 159 Mass. 372, 34 N. E. 402.
[17]See Ann. Cas. (1912), A 375.
[18]Society of Sisters v. Oregon, 268 U. S. 534. For text of bills, see p. 530.
[19]Ruling Case Law, Vol. 23, p. 623.
[20]Ibid.
[21]See also Commonwealth v. Roberts, 159 Mass. 372; 34 N. E. 402.

The Status of Dancing in the Larger Indiana High Schools

D. S. Weller, Principal of the Portland, Ind., High School

The returns of 52 questionaries out of 58 sent to the largest high schools of Indiana reveal the following facts in regard to high-school dances:

1. Dancing is prohibited in 18 schools.
2. Dancing is permitted only as a part of another school function in 12 schools.
3. Regular dances are permitted in 22 schools.
4. Five schools permitting dancing hold some of their dances in the afternoon after the close of school.
5. Schools permitting dancing keep it strictly under school control. However, in a number of cases, parents are invited to help chaperon.
6. In most cases, members of the faculty participate in the school dances.
7. Twelve schools state they have had trouble with either immoral conduct or improper dancing, and 17 state they have never had such trouble.

The schools which do not permit dancing offer the following reasons for not doing so:

1. Public opinion is unfavorable.
2. As a school activity, it has no place.
3. The supervision of dancing overworks the principal and faculty.
4. Dancing causes a difficult discipline problem.
5. The duties of the chaperon are disagreeable.
6. High-school students have more social activities than they need without the addition of dancing.
7. The principal is opposed to dancing.
8. Activities that all students will not participate in are undesirable.
9. It is hard to keep out the people who are not students. They cause the trouble.

The schools in which dancing is permitted offer the following reasons for doing so:

1. School dances are better than unsupervised dances.
2. Dancing is the best way of entertaining large numbers of young people.
3. Dancing is wholesome exercise.
4. Dancing provides a means for the mingling of boys and girls under proper control.
5. Students ask for dances.
6. Dancing is enjoyed.
7. Dancing is the most easily controlled of all school social activities.
8. Dancing is a part of school social life that must be tolerated and directed.

A Study in School Seating

Supt. L. D. Lundberg of Flint, Mich., Sets Up Practical Standards

The modern school desk is a graceful and utilitarian piece of furniture. It has been evolved through the genius of the inventor and the mechanic. It is an indispensable part of a well-equipped classroom. The proper selection, however, of the modern school desk and its proper utilization in a schoolhouse involves some interesting considerations.

L. D. Lundburg of Flint, Michigan, has engaged in an interesting study on the seating of the kindergarten and primary grades. He enters into comparisons of fixed seats, movable chair-desks, and tables and chairs for the primary grades, with some practical results. In introducing the subject he says:

"The proper seating of school children of the primary grades is a problem which has been the basis of some study, much conjecture, and no little confusion of opinion. Especially is this true of the upper primary grades. This diversity of opinion is perhaps due to the lack of community of agreement in the various standards set forth, to which good seating should conform. In the past the factors determining proper seating were considered in the light of cost, economy, depreciation, posture, and sanitation. These are very important criteria, to be sure, but there are also necessary and important educational and instructional conveniences and features which should certainly be included with these standards to make for the best seating obtainable. Our advance in teaching technic is being reflected in the type of furniture required for various grades and educational purposes. Heretofore, standards referred to individual seats rather than types of seating."

He then states that in order to evaluate a type of seating a set of criteria as a test must be established, and proposes the following standards as applied to primary-grade classrooms:

Standards of Seating Primary Grades

I. *Education and instructional factors involved in the seating of primary children.*

1. Adaptability of the seating to *informal* and *socialized* work; work carried on more or less independently of other groups and individuals in the class, and work requiring group cooperation and a unitary focus of the class.

2. Adaptability to group instruction; i.e., several kinds of work carried on at the same time, with frequent shifting of teacher supervision and control.

3. Adaptability to activities of a constructive and manipulative nature, such as painting, pasting, cutting, etc., where ample desk room is necessary.

4. Availability of free floor space for dramatic, project, and play activities found in the primary-school mobility.

5. Adaptability to the satisfactory use of modern materials such as large paper for poster work, large sets for silent reading, large booklets, etc., for instruction in primary reading, writing, and arithmetic.

6. Adaptability to the young child's need for freedom of movement in the seat.

7. Possibility of making the room serve multiple purposes such as library, etc.

8. Possibility of making the room beautiful and more homelike.

9. Provision for the storing of materials.

II. *Factors involving hygiene, sanitation, and safety.*

1. Necessity of individual seating to lessen spread of contagion, colds, etc., that come from seating pupils too close together or facing one another.

2. Adjustability of the seating to the constantly shifting lights.

3. Adjustability to correct posture of each child with little or no constant change.

4. The ease and thoroughness with which the floors can be cleaned (absence of dust and dirt accumulation on floors or in seat crevices).

5. The lack of noise and disturbance in getting in and out of seat or in shifting the pupil's position. (Stability of the seat also involved.)

6. The absence of interference of seats during fire or panic scares (chairs not easily tipped over, etc.).

III. *Factors involving cost, depreciation, and administrative use.*

1. Low initial cost.

2. Slow depreciation of seats.

3. Seating in relation to destruction to floors. (Screw holes, scratching, gouging caused by sliding furniture.)

4. Adaptability of the type of seating to crowded room conditions within the building (exchange of seats from room to room or from one school to another).

5. Adaptability to community use of the rooms for auditorium purposes.

6. Avoidance of carrying emergency stocks of idle seating equipment to avoid removing unused seats in other rooms.

7. Cost of installation of furniture in the room.

"There are doubtless other standards," says Mr. Lundberg, "which should not be omitted from the consideration of the best types of seats and seating for these grades. Finish, construction, inkwells, etc., are factors which are more or less readily included in the foregoing outline of standards." Some of the standards may be consistent for any particular grade, whereas others may depend for desirability upon the different lines of work offered in the respective grades, or which may be peculiar to a particular grade. Some standards may vary considerably in relative importance, depending upon one's viewpoint. In any school system, the solution of the seating problem as applied to any grade is dependent equally as much upon local experimentation and experience as upon consideration of the opinions of educators.

As a means of comparing local experience and the results of local experimentation with the findings and opinions of a large group of school people, Mr. Lundberg sent out copies of his standards, in the form of a questionary, to a select group of superintendents, assistant superintendents, school-building superintendents, primary supervisors, primary teachers, and elementary-school principals. While Mr. Lundberg holds that the different opinions of schoolmen cannot yield a final word in the solution of the seating problems in any community, they certainly furnish valid material for consideration by school executives.

A Study of Three Types of Seating

Three types of seating were considered in the study: (1) Adjustable fixed seats, (2) movable chair-desks, and (3) tables and chairs (two pupils to each table). The comparisons of these types were confined to the best type of each. Thus, no comparison was made of the ordinary fixed seat with the best kind of movable chair-desk or table. By movable "chair-desk" is meant that type of seat which has an adjustable desk top (not armchair top), adjustable for height and slant, as rigid in construction as possible, and conforming to the latest demands of hygiene, posture, and mobility.

These three types of seating were scored with reference to each standard for each grade. Each type was scored for each grade on the basis of first, second, or third choice. The type having the lowest score for each standard was the one preferred for that grade.

Upon tabulating the results sent in by (*a*) the primary grades, (*b*) principals, and (*c*) other school executives, it was found that fairly complete agreement existed between the three groups with respect to general preferences.

The supervisors and administrative officials favored tables and chairs in the kindergarten and in the first and second grades. They expressed a favorable opinion for the use of movable chair-desks as an optional form of seating in the second grade. Their choice for the third grade was movable chair-desks, but they held that tables and chairs are almost equally well adapted to the needs of the grade.

Principals of elementary schools showed a decided preference for tables and chairs in the kindergarten and first grade. They expressed some preference for tables and chairs in the second grade, but they were evenly divided between tables and chairs and movable chair-desks for the third grade.

Primary teachers preferred tables and chairs in the kindergarten and in grades one and two. They preferred movable chair-desks in the third grade, with tables and chairs a close second. The opinions of the primary teachers did not involve the consideration of the factors which relate to economy and administrative uses of furniture.

On the basis of the first fourteen factors (educational requirements and requirements for hygiene, safety, and sanitation), the choice of principals was for tables and chairs in the kindergarten and in the first three grades. Chair-desks were a close second in the third grade. The teachers preferred tables and chairs in the kindergarten and grades one and two, and movble chair-desks in grade three. Superintendents and other school executives chose tables and chairs for each of the grades considered but they hold that movable chair-desks are equally as good in the third grade.

Analysis of Choices for the Respective Standards

Adaptability to Informal and Social Work and Group Instruction. Preference was expressed for tables and chairs for the kindergarten and grades one, two, and three. For grade work in the third grade, movable chair-desks were favored. Fixed seats were considered least desirable, indicating little relative adaptability for group instruction and informal work. Dr. H. E. Bennett concurs in these choices. He indicates that where large tables are used and pupils are facing in various directions, or are working in groups unrelated to pedagogical requirements, the practicable ideals of informal socialized instruction are often defeated, while the arrangement is also unfavorable to individual concentration.

In organizing group instruction, seating must be adaptable to groups of various sizes, from two pupils to a large section of the whole class, without interfering with individual concentration or study. Interference with individual concentration caused the abandonment of double seating years ago. Small groups should be determined by the necessity of instruction and not by the furniture. Group instruction is sound pedagogy, but only if the grouping is flexible. Individual movable seating is capable of any combination for group teaching, whereas fixed seats are inflexible, and tables and chairs, unless individual, have relative handicaps. Movable furniture arranged for group teaching must be placed with due regard for correct light conditions for each individual.

For socialized recitation purposes, a unitary arrangement of individual seats, as proposed by

Dr. Bennett[1] furnishes a unitary focus for the pupils, a clear view of all the pupils by the teacher, and an unobstructed view for the pupils of the blackboard and of the activity center of the room. Here, proper conditions of light, egress from the room, and many other conveniences are offered to individual pupils, as well as to the class as a whole. The factors just mentioned have greater relevancy in the second and third grades than they have in the kindergarten and in the first and second B grades. This is true because curriculum and activity differences vary even in these grades.

Adaptability to Construction and Manipulative Activities. Tables and chairs were again favored for all primary grades. This choice seems perfectly logical, especially as these activities require more table or desk room than is offered by the average fixed seat or movable chair-desk. Such project work requires the cooperation of several students; tables and chairs may be indispensable. Mr. Lundberg recommends for the Flint schools that two or three tables with chairs be provided in each classroom as extra equipment regardless of the type of seating adapted for class purposes.

Adaptability for Free Floor Space

Free Floor Space for Dramatic, Project, and Play Activities. For kindergarten and for grades one and two, tables and chairs were preferred. Movable chair-desks were considered equally as much as tables and chairs in the third grade. "It is not clear why a purely physical situation, like available floor space, determined by the size of the room and the square feet occupied by any type of seating, should vary from the second to the third grade with any one kind of seating. A table with two chairs really requires from 10 to 20 per cent more floor space than two fixed seats or two chair-desks, all designed for the same size pupils, provided, of course, that the chairs are not placed on top of the table, or underneath, in which position the area per pupil is about the same for any type of seating."

Adaptability to the Use of Modern Materials for Instruction. In each of the grades considered, tables and chairs were considered the best type by virtue of their larger flat working surfaces.

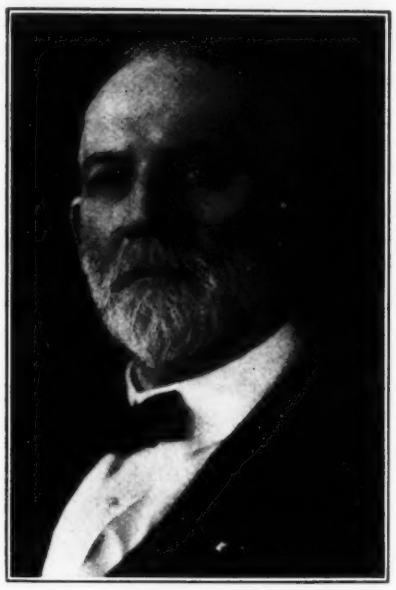
Adaptability to the Young Child's Needs for Freedom in the Seat. Tables and chairs were again chosen for each of the grades. "They certainly offer a greater variety of possible positions than either the fixed seat or movable chair-desk to a small child who quickly tires in any one position. This freedom may be perfectly legitimate, insofar as it does not interfere with the formation of the proper posture habits so important to the growing child. And it perhaps does not do so in the kindergarten and first grade, where the child is seated in his chair at a table only for very short intervals, the rest of the time occupied in the various activities of these grades which do not require sitting.

"However, in the second, and more particularly in the third grade, where there is usually more seat work, a type of seating is made necessary which will correct as well as maintain good posture so far as possible. Freedom of movement should not interfere with the study of others seated at the same table, especially in writing periods. This will obtain in the second and also the third grade. Individual seating is a necessity in this type of work."

The Element of Beauty

Making the Room Beautiful and Homelike. Tables and chairs were considered more suitable for these purposes than the other types of seating. If the informality of the seating arrangement of tables and chairs does not interfere with the individual lighting and hygiene requirements, and if care is taken not to injure table tops by placing chairs on them, there can be no objection to this arrangement or choice.

[1]Seating Arrangements in the Classroom, School Board Journal, July, 1926, p. 45.



DR. JOHN PALMER, JR.
Wilmington, Del.

—Dr. John Palmer, Jr., is entering upon the fortieth year of his service on the board of education of Wilmington, Del. Dr. Palmer who has served continuously on the school board since July 1, 1889, is a well-known physician in Wilmington, and was graduated from the Wilmington High School in 1876.

During the history of the Wilmington schools, there have been only four superintendents. Dr. Palmer has served on the board with all the superintendents. At the present time, he is filling the office of president of the board.

Making the Room Serve for Library, Laboratory, Music, and Other Purposes. Tables and chairs were again giving the best rating for each of the grades under consideration. There was some preference for chair-desks in rooms where play, gymnasium, or music purposes are to be served.

In his study, Mr. Lundberg set up no standard for storing materials. He found, however, that tables equipped with drawers have the drawback that it is necessary to move the chair in pulling out the drawer, and that there is noise and necessary readjustment for correct posture. The movable chair-desk does not have this disadvantage. The pupil's weight serves to keep the chair from moving when he opens the drawer which is under the seat. In some of the later types of chair-desks, the book compartment is at one side of the desk part, the cover of which is integral with the desk top when closed.

In totaling the scores of all of the instructional factors, Mr. Lundberg concluded that better all-around adaptability could be attained by the use of tables and chairs in the kindergarten and the first grade. He concluded that movable chair-desks and a few tables and chairs provide the best arrangement in the second and third grades.

The Factors of Physical Safety and Hygiene

The preferences of teachers, principals, and superintendents were for tables and chairs. From the standpoint of hygiene and safety, movable chair-desks were considered equally good in the third grade.

Generally speaking, individualized seating was preferable from the hygienic standpoint. The increase of the chance of contagion due to coughing in one another's face, sneezing, etc., may be considerably minimized by individual seating. This objection directed against tables and chairs does not hold where pupils are placed on one side of tables only.

The Cleaning of Floors. The choice of the principals and teachers under this heading was for tables and chairs. The superiority of movable furniture over fixed furniture requires no explanation, but it should be added that many janitors object to the lifting of chairs (placing chairs on tables when sweeping) because of the time wasted in preparing a room for sweeping. However valid this objection may be, it points to very little choice between tables and chairs and movable chair-desks when the ease and thoroughness of sweeping is considered. The practice of placing chairs on table tops for any purpose is destructive to the tops and is perhaps insanitary.

The Lighting of the Classroom. In considering the efficient lighting of classrooms, preference was expressed for tables and chairs in the kindergarten and first grades, and for movable chair-desks for the second and third grades. Undoubtedly the all-around preference of tables and chairs influenced the scoring on this standard.

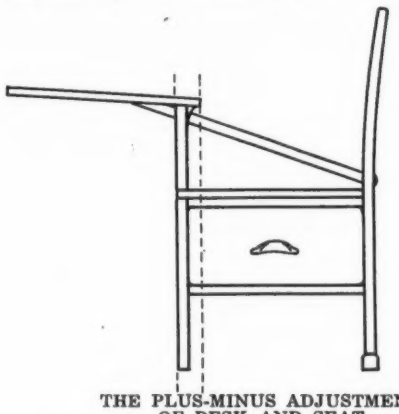
"Proper lighting for each pupil depends upon the pupil's position with respect to the window. The usual position of seats in a classroom furnishes a good optical average for the class, but about half of its members are bothered by the glare which comes from the windows on the left. The intensity of the light from the windows is greater than that coming from the blackboard. The only correct solution is the best angle of light incidence. This requires individual seating. Fixed seats may be made a little more adaptable to this requirement of lighting, if they are of the swivel type, but this does not better conditions greatly. The placing of each fixed seat in the position of proper light incident for each individual works considerably better but does not provide for the shifting of the light angle. Of course, artificial lighting of the best type may avoid some of the obstacles to good, natural lighting.

"With tables and chairs greater flexibility toward adjustment to light conditions may be had, but the flexibility is limited by the proximity of the two pupils sitting at the same table. The use of larger tables seating eight or twelve pupils, with some facing each other, provides the poorest lighting conditions of any type of seating, and should not be considered. Movable chair-desks are the most completely adjustable to proper lighting of any type."

The problem has greater import in the second and third grades than in the kindergarten or first grade, because of the relatively short time spent in seats in the latter grades.

Posture

Adaptability to Posture. Preference for movable chair-desks was expressed in the matter of adaptability to correct posture. The general opinion was that tables and chairs, so far as this factor is concerned, are suited only to the kindergarten. It is Mr. Lundberg's opinion that "the improved types of fixed seats and movable chair-desks are both superior to tables and chairs; the fixed seat by its adjustable seat and desk heights and desk slope; the chair-desk, by its correct adjustment between desk height and seat height. Just as important is the relative position between the knee edge of the seat and the inside edge of the desk. A proper minus distance is essential for correct posture and with proper desk and seat height, desk slope and



THE PLUS-MINUS ADJUSTMENT OF DESK AND SEAT

(Continued on Page 140)

Intelligence Grouping vs. Democracy

C. C. Carson, University of Miami, Miami, Fla.

The longer I work with intelligence tests, the more I am confronted by such an amount of conflicting opinions that it seems to constitute a psychological complex, so truly a maze, that my intelligence is unable to penetrate it. What is the relation of intelligence testing to democracy? Not many years since the "Bagley-Terman controversy" published in a number of educational magazines sought an answer to this question, and, I confess, it is probably very unwise for anyone at this late date to step between these gladiators.

In the present paper I shall state my convictions and stand or fail by my opinions, however widely they may be at variance with recognized authority. Even the greatest of the authors of intelligence tests does not hesitate to base a statement upon a straight-forward "it is my opinion," and I find it sometimes most difficult to discriminate between their opinions subjectively, and what they have determined objectively by scientific methods. In this discussion, if I mix my drinks somewhat between objective data and subjective opinions, I shall be able to point to several of the authors of tests for precedents.

Do not misunderstand me: I believe that the intelligence tests, such as the Terman, the Otis, the National, and the new Thorndike, and others, do test certain attributes of intelligence. In my opinion, they all have the same virtues and the same general faults and are very much alike. They do give, in a very general way, an indication of intelligence, whatever that is and whatever meaning is assigned to it. If the enthusiastic advocate of these intelligence tests did not insist upon *taking in* too much territory, I should have no controversy with them. I repeat that these tests do tend to point out quite clearly the achieved level of children, if by "intelligence" we mean the capacity to do the type of thinking tested in these tests. This statement may be applied to the Stanford achievement tests, the Woody tests, and the Thorndike-McCall tests, and many others of similar nature. The suspicion is very strong that the major element tested is more nearly what we have been accustomed to think of as achieved progress, or "intellectual" progress rather than intelligence.

Supporting the Claims of Intelligence Tests

I am perfectly aware that my readers may stop reading when I say that it seems to me that there is too much hot and cold blowing on the part of test authors. First, a hot blast, "the tests do test intelligence, native, inborn, raw brain power," second, a cold blast, "they are affected by environment," that is, they might conceivably be so influenced but in reality they seldom are. This cold blast is seldom omitted as a reserve conveniently placed for use when needed, but generally ignored in the main engagment. In the introduction to the Otis Group Intelligence Scale, instruction book, (I am discussing group intelligence tests as commonly used) Terman says, "The Otis Group Intelligence Scale is an instrument for the measurement of *native mental ability*. It comes as near testing raw brain power as any system yet devised." Dr. Otis in the preface immediately following goes on, at once, to the subject of the differentiation into groups of bright, medium, and dull pupils, with the clearly stated purpose of teaching them in different groups and with a different purpose. I have read that preface repeatedly and carefully, and there is, I believe, not one sentence which does not assume that the scale tests *native, inborn, raw brain power,* and that any other variable factors are negligible. Now there is a world of data bearing on different phases of the problem, but I find no references to any data justifying such an assumption. All schoolmen who have followed Dr. Terman during the past few years will, I think, agree that while he has moderated the heat of claims for intelligence tests by the cooling blast of caution, yet he has immediately followed with concrete instances in which the tests were made the bases for separation into groups with no reference to varying environment as a strong factor. In fact, such instances as he has cited were deliberately chosen to indicate that inborn, raw brain power is the great element for the intelligence-test group separation.

Will you allow me to turn to the 21st Year Book[1] and quote from the late Dr. Colvin who says *"Intelligence itself* is *not inborn,* only the *capacity* to become intelligent." Then he quotes Thorndike as advocating the view of a number of related abilities, which are positively related, and holds for a multiplicity of innate abilities that are related in varying degrees. If a boy has a high degree of innate ability in one thing, it increases the probability for a high degree in another, and that is all, with a good positive correlation; but like all good qualities, in my opinion, it surely is not a certainty. Usually a boy's weight has a close correlation to his age; but if he grows extremely tall, note how slim he sometimes is; or if extremely short, how fat and wide. It is possible that the genius is very tall by I.Q. but thin by some other quality, as is illustrated by Lomboraso's study of evidences of genius and insanity.

Types of Intelligence

Dr. Colvin, in the paper just referred to, goes on to quote Thorndike specifically as accepting three types of innate intelligence, namely, (*a*) intelligence of words and abstract ideas (I.Q. kind), (*b*) motor intelligence or the kind which shows itself in mechanical skill, etc., and (*c*) social intelligence or ability to get on well with one's fellow men. Now this is again his opinion, not definitely established by scientific facts. It may be good, so far as it goes, but it is not final nor convincing. I raise the question: If this is true, why just three? Why not a fourth, a moral intelligence including integrity, honor, and ideals? Or a fifth, the spirit of grit and energy, which will not die? Or a sixth, for business ability, diplomacy, and foresight?

Not so very many years ago I sat in a class taught by a distinguished professor of educational psychology in one of the best schools of education in the middle west, and we were told that it had been definitely determined beyond any reasonable doubt that the mind is a unit, that the mind which is strong in one mental trait, is strong in all. Now this is being modified!

Most of us accept what is taught by experts and specialists who give their major labors to a field. We have been taught that the mind, in regards to the factor of natural capacity, is a permanent thing. The amount of natural capacity is determined at a time before birth; it develops with the growth of the body up to a certain point variously estimated at ages ranging from 13 to 18 years of age; after that it does not increase. Some writers even hold that it diminishes slowly. We have been taught that this has been determined by modern scientific methods, and that it is a law so definitely established that it must be accepted.

Yet, I doubt whether any of my readers have a very clear idea of the method by which this theory or law is established. Allow me to state the law boldly: If one is born with brains, he is in great luck; but if he is not, just let him grin, foolishly of course, and bear it, for there is nothing he nor anyone else can do to change these facts one iota. Of course, learning can enter later, but only in proportion to original equipment. That is the basis of educational determinism, and it is a most consoling doctrine, especially to the group who are in the upper class. To them, all the doors of opportunity are swinging wide open. Let them enter, and possess the land, flowing with milk and honey. As for these others, let them be hewers of wood and drawers of water forever, as the Lord has willed it so.

The Determinist's Third Step

We have also been taught that not only this mental equipment is determined from birth, but that the group of psychologists just referred to has devised schemes for *measuring this innate, native, inborn, endowment, this unchangeable fundamental, and thus determine,* in another sense, the future status of each individual. Do you remember how the weakly young Teddy Roosevelt, by clean, healthful living, developed a strong physical constitution, capable of supreme effort. We are told that strength of the mind is not subject to like improvement. If intelligence tests show that an individual has just so much intelligence, why that is *what he has,* and *all he ever will have,* and that is all there is to it. It is just like your balance at the bank; what your bank statement shows is there, and there is no use to stew about it. You must simply make the best of it.

Now we are hearing the determinist's third step in determinism. Not only is the mental capacity of each individual determined and fixed at the beginning, unalterable as the kingdom of Medes and Persians; not only are facts concerning Johnny Jones determined and published to a sympathetic world by these wondrous methods of tests, but it is proposed to determine Johnny's school status, and consequently his future social status, upon this same hypothesis. If the tests say he is very bright, give him extra opportunity—a super school. (At present the determinists do not seem to be able to determine what constitutes a super school.) But, if the tests say that Johnny is only an ordinary, or a common-stock kid, such as most of us were, then shove him into some class suitable for his mentality, and inscribe over the door, "Abandon hope, all ye who enter here." Let his future state be as unalterably determined as that of Dante's lost souls wandering in avenues, from whom all the glories of Paradise are shut off as by a great gulf.

And they want to designate this segregation of pupils into bright, medium, and dull groups, as democratic, and hold that the scheme is for the good of the individual, of society, etc. Here I find myself in a quandary, as I was taught and always dreamed that democracy is an *ideal* which gives to every man and child a chance to aspire from the very start.

Falsity of Previous Ideals and Conceptions

Then, into the midst of all this agitation for this scheme of determinism came Professor Bagley, who threw a monkey wrench into the gears of the Termanites, by the statement that the theory is very sweet, and wondrously attractive, especially to the upper tenth, but that there is just one minor difficulty with it all. *"It just is not so."* To quote him: "These hypotheses and assumptions, while doubtless justified for certain purposes, are at the base, questionable to the last degree."

[1] National Society for the Study of Education. Public School Publishing Co., Bloomington, Ill.

SMALL PANEL OF NEW MURAL IN THE ITHACA HIGH SCHOOL

Professor Bagley goes on to explain the fault in the hypothesis, showing that it has *not* yet been determined that the *innate mental capacity cannot* be improved. It is not true that the old theory of mentality *depending* on the number of nerve cells had to be abandoned? Probably the present theory may have to be thrown overboard under the increasing evidences of the effect upon mental life of the activity of certain glands, such as pituity, the thyroid, and the adrenals. As these are physiological conditions rather than psychological conditions, may it not be that a child's mental equipment is not determined, and that it is not unchangeable from the beginning? Dr. Bagley calls attention to Dr. Colvin's discussion of intelligence testing in the 21st Year Book, cited above, in which he writes "the brightest European child, reared from birth by a group of African pigmies, would appear as a moron or worse, if later transported to a highly civilized and cultural community." Again quoting from Dr. Colvin: "We never measure *inborn* intelligence, we always measure *acquired* intelligence. Then it surely must be assumed that where acquired intelligence is low, the native intelligence was also low, not only at first, but always will continue to be so." Surely, here is an assumption that the difference between the environment and education of children are quite negligible and that the main differences are innate.

I believe this question should be certainly determined before any final claims are made by the determinists. It does not appear to be my duty to settle these points: I am trying to make it plain that the *evidence is not all* in yet, and apparently all the determinism is not yet determined.

Qualitative Differences in Intelligence

There is still another phase of the question which is almost never mentioned, but which to me seems equally important. I doubt very much if it has been adequately studied. In all the writings of Terman and Otis, and the literature of intelligence tests commonly used, in Bagley's criticism and Colvin's discussion, the whole problem of intelligence seems to be based upon and treated as a matter of amount. The discussion seems to rest upon the assumption that one child has a greater amount of intelligence than another, and as a result a better intelligence. The analysis seems to be *quantitative.* Now I believe that there may be another distinction, or trait, of intelligence which may be thought of or fitly called *qualitative differences.*

To illustrate: "If I go to the horse show at the state fair and watch the judging of horses, I shall see three distinct types of horses. First to enter the ranks may be some great big fellows, slow, powerful, heavy boned, with strong, wide backs and big hairy legs, thoroughbred, heavy, draft horses, suited to a special kind of work. Next, come out the coach-type horses—lighter, smaller in build, and quicker in action, and suited for coach work, but none the less a fine lot of thoroughbreds. Next, comes into the show ring the racing type of horses—quick, nervous, a quivering mass of speed, and they, too, are thoroughbreds.

To measure the race horse by the standards of the draft animal would be as unjust as to measure or judge the draft horse by his speed record. But, remember, each is a thoroughbred in his own way. Just so, it seems to me that there may be great qualitative differences as well as quantitative differences in human intelligence. If we are justified in assuming a quantitative difference, would we not be equally justified in assuming a qualitative difference? It seems to me that there is possibly many a thoroughbred mind of a different type from the bookish mind which does well in the accepted tests.

Many Problems Unsolved

I do not deny individual differences, and believe that they should be measured where possible, but I think also that there are so many problems yet unsolved that the present methods are inadequate to prognosticate. And even if our methods are reliable, I hold that the application of these tests to such purposes as some educators propose are extremely undemocratic.

The child-welfare department of one of our big state universities has pretty well classified at least forty important traits of individuals, besides several more traits of less importance. Mentality, as understood by that term, is only one of them. To assume that one trait outweighs all the rest is weighing it out of all due importance. In fact, it seems to me that the advocates of determinism are inconsistent in their very tests. Remember, I am writing now of the especially common group of intelligence scales. Their advocates base their conclusions upon the assumption of a very close correlation between ability in one line of activity and in all lines. They admit that they do not test all of the individual's capacities. If that is true, why do not pupils do equally well in all? I call to mind one pupil who passes a very low score, yet has an almost perfect grade on his academic record; another pupil low in general achievement, but very high in memory; and a third who scores very high in general results, but is low in proverbs.

PANEL OF NEW MURAL PAINTINGS IN THE ITHACA HIGH SCHOOL

In view of the psychology which denies the carry-over, does it not seem probable that in some parts of the common tests definite bonds have been formed, while in others no such bonds have been established? In other words, that a large element of success in the test is due to the fact that the pupil has been well taught, both directly and indirectly, the mass of material contained in the test?

To bring this discussion to a conclusion, I shall attempt to summarize just wherein de-

(Concluded on Page 136)

MURAL DECORATIONS IN THE ITHACA HIGH SCHOOL

The illustration on pages 54 and 55 are made from four mural decorations recently placed in panels in the assembly hall of the Ithaca High School, Ithaca, N. Y. The panels were painted by Mr. Ralph Bradley of New York City, a mural artist of note.

The subjects of the four panels are suggestive of the beautiful scenery of the Finger Lakes country surrounding Ithaca. The borders are composed of Indian symbols based on the interesting history of tribes who formerly lived in the region. The coloring is rich and brilliant, and the paintings have aroused a good deal of interest not only among the students, but also among visitors to the school.

The funds for the decorations were gathered by gifts made by recent graduating classes and by a fund collected by various school organizations.

LARGE PANELS OF THE NEW MURAL PAINTINGS
Painted by Mr. Ralph

Aspects of Tenure and Turnover Among Minnesota Teachers

R. I. Seeder, Superintendent, Bird Island, Minn.

A study of the experience, training, and rate of change in personnel of teachers should prove of value to school officials in that it reveals data which will be helpful in correlating supply with demand and in predicting and controlling changes in the personnel of the teaching staff in the entire state or in local communities.

While no figures are at hand which indicate clearly the cost of teacher turnover, it must amount to a large sum annually when all the expenses incurred by employment officials in their efforts to find and hire the best possible teachers, are totaled. Vastly more serious than this initial expense is the loss incurred through lessened efficiency on the part of the teacher who is new in a school system, and perhaps also inexperienced in the profession. This loss cannot be measured in dollars and cents, but it can be seen in the decreased efficiency of the schools. One writer states the matter in this manner: "It is more efficient (and, therefore, less expensive) to keep trained, experienced, and highly competent teachers than it is to hire each year, less experienced, less trained, and less competent teachers at less salary."[1]

Excessive mobility is costly not only to the school district, but to the teacher as well. Agency fees often must be paid, as well as other expenses of moving from one school to another, all of which combine to cut the net income of the instructor. This expense operates to place an additional burden on the taxpayers, since the latter pay the bill in the end.

This article is a brief summary of an investigation made to reveal conditions in the state of Minnesota regarding tenure and turnover in the various types of school systems as are found in this state. If the supply of trained teachers is exceeding the demand, something can be done to restore the proper balance only after conditions are clearly revealed. If turnover is shown to be excessive, and if it is realized that it is harmful to an efficient school system, those in control may heed the danger signal and take the necessary corrective steps.

Data for this study were obtained from several sources, but almost entirely from school officials. Figures on demand, experience, and turnover of elementary and secondary teachers, came from reports made by superintendents or principals to the Minnesota State Department of Education.[2] Information concerning rural teachers came from county superintendents in seventeen counties, selected so as to give an adequate geographical sampling of the entire state. Data on the training of teachers were secured from the professional training institutions in the state, and from the state school department.

All figures given are for the school year, 1924-25, unless otherwise noted. Rural, elementary, and secondary teachers were included in the study. Rural teachers are understood to be those who teach in the ungraded elementary schools which are usually in one-room buildings in the open country. Elementary teachers are those who teach in the organized, graded schools, in grades one to eight inclusive. Secondary teachers are thought of as being those instructors who have their work in grades nine to twelve. Whenever reference is made to conditions existing in 1920-21, the study made by MacLean,[3] using data for that year, is used for the purpose of making comparisons, as his study covered much of the same ground as the present one.

In order to make a complete analysis, it was decided to divide the teachers into groups based largely on the population of the cities and towns in which the schools were located. It was also desired to make such groupings in an effort to learn whether conditions in the large schools were much different from those in the the smaller, weaker systems where teaching conditions are often not as pleasant. Groupings were used as follows:

(*a*) Minneapolis, St. Paul, and Duluth, each taken separately; (*b*) state high schools in cities of 5,000 to 20,000 population; (*c*) 3,000 to 5,000 population; (*d*) those under 3,000 population; (*e*) Iron-Range cities; (*f*) high-school-department schools; (*g*) small graded elementary schools.

High-school-departmental schools are located in towns under 1,000 population and do not have as high a classification as state high schools, hence teaching conditions are different in them. The small graded elementary schools are in small villages and usually do no high-school work.

[1]Lewis, E. E. *Personnel Prolems of the Teaching Staff;* New York, p. 329, 1925.

[2]Annual Report Relating to the Qualifications of Teachers in Four-Year and Senior High Schools and to Qualifications of Elementary Supervisors and Teachers, State Department of Education, Saint Paul, Minn.

[3]MacLean, R. B., The Demand and Supply of Trained Teachers in the Public Schools of Minnesota. University of Minnesota.

IN THE ITHACA HIGH SCHOOL, ITHACA, N. Y.
Bradley, New York City.

The Demand for Teachers

Approximately 21,000 teachers were needed in the public schools of the state of Minnesota in 1924-25. In round numbers, 8,500 of these were in the rural schools, 8,600 in the elementary grades of the graded schools, and 4,400 in the high schools. A total of 1,500 more teachers was required in the rural, elementary, and secondary schools than in 1920-21 when MacLean made his report. In the period from 1910 to 1924, the number of rural teachers declined slightly; 8,719 were employed in the former year as compared with 8,541 in the latter. The decrease was 4.6 per cent. The 1920 Federal census shows that during the period from 1910 to 1920 the rural population increased 7.5 per cent. But the number of pupils in rural schools also decreased in the interval from 1910 to 1925, to the extent of 14 per cent. It is evident that consolidation has brought about this marked decrease in the number of pupils, since it is revealed that the population has actually increased. The same cause has probably brought about a decrease in the number of rural schools and, therefore, in the number of teachers.

In the elementary field there has been a healthy increase in the demand. In 1910 only 5,181 such teachers found positions in the graded schools of the state, while in 1924-25 this number had increased by 66 per cent to 8,621. Consolidation has aided here, but other factors have been of assistance, among them being better compulsory-attendance laws and a greater demand on the part of every citizen for early and better education for his children.

It is in the secondary-school group that the most profound change has occurred. In this field 1,257 instructors were at work in 1910. This number constantly increased until, for the school year 1924-25, 4,392 were employed, a gain of 250 per cent. This expansion has not come about entirely because there are more and more secondary pupils to be instructed, for the increase in enrollment during the same period is but 107 per cent. Another important factor is found in this fact that, while 57 different high-school subjects were being taught in 1914-15, this number had increased to 116 in 1924-25. This has resulted in more specialization and at the same time in smaller classes, and has distinctly improved teaching conditions.

The annual demand for the year 1924-25 was found to be greatest in the rural schools where 2,200 teachers, 26 per cent of the total employed, were needed to replace those who left this field. In the elementary grades of the graded schools, for this same year, it was necessary to replace, or add because of growth, 12.4 per cent of all the teachers employed; while in the secondary corps 17 per cent were needed for the same sort of replacements. It can be seen from these figures that the problem of securing greater permanency in our teaching force has not been solved. In fact, nothing but a mere beginning has been made in that direction by attempting to improve conditions for teaching through tenure laws and other regulations. The work must be carried on so that the tremendous economic waste caused by so much shifting may be eliminated to a greater extent.

The Supply of Teachers

In 1920-21, MacLean found that the supply of trained teachers in Minnesota made up but 60 per cent of the demand. In other words, 40 per cent of the teachers then actively engaged in instruction, did not have adequate training and did not fully qualify for certification as required by law. No such deplorable situation

existed in the year 1924-25. In the rural schools enough qualified teachers were employed to meet the demand during this year. They qualified either through graduation from professional training schools or by passing examinations given by the state. The same situation existed in the elementary and secondary schools. In each case some surplus was shown, but this was not large enough to create any serious problem for the unemployed teachers. In 1927 and 1928 the situation seems to be much more serious and there is some question as to whether the training schools are not turning out too many prospective teachers. The conclusion can still be drawn, however, that the most efficient members of the profession will obtain the teaching positions, while those who do not succeed, even though they may be trained and certificated, will be eliminated. Thus, better teaching may result, with better schools for every pupil. In Table I may be seen the situation with regard to certification of teachers in the various classes of schools. By number of certifications is meant the number of teachers' certificates granted by the state.

TABLE I

Summary of Teachers' Certifications, 1924, Compared With Teachers Required, Due to Replacement Growth, 1924-25

Teacher Grouping	Number of Certification	Number Required For Replacement and Growth	Surplus
Rural	2 257	2,137	120
Elementary	1,098	1,021	77
Secondary	808	753	55

The Experience of Teachers

What is the relation between the experience of teachers and their efficiency in service? This question cannot be exactly answered, but the fact that there is some relation is demonstrated time and again when teachers are selected. Other things being equal, the experienced teacher gets the position over the inexperienced one because the former is usually older, more mature, and has had the opportunity to put into practice the methods she has learned in the training school. Many schools require experience on the part of incoming teachers and, in their salary schedules, grant credit for teaching done in other systems.

It may be assumed, therefore, that in the vast majority of cases, experience is valuable. For this reason considerable time was devoted to a study of the experience of the teachers in Minnesota schools. The data revealed that the teachers in the rural schools as well as those

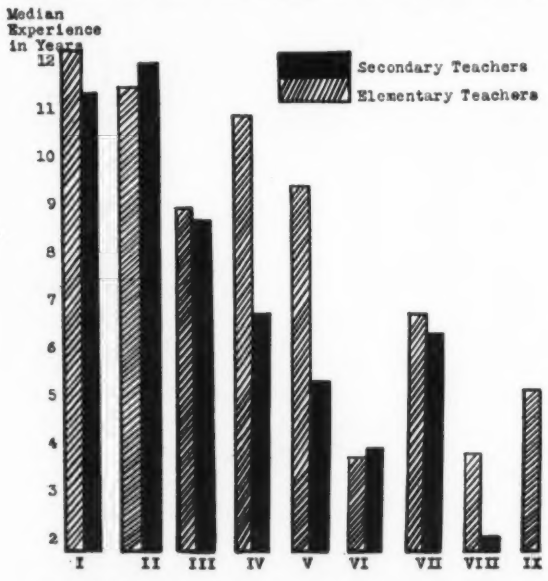


FIGURE 1. Graph to illustrate the experience in Years of the Elementary and Secondary Teachers in the Public Schools of Minnesota, 1924-25. Rural Teachers Excluded.

Key:
I. Minneapolis.
II. Saint Paul.
III. Duluth. State High Schools
IV. 5,000 to 20,000 population.
V. 3,000 to 5,000 population.
VI. Less than 3,000 population.
VII. Range Schools.
VIII. High-School Departments.
IX. Graded Elementary Schools.

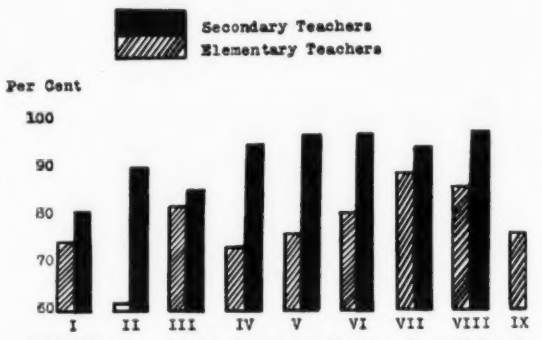


FIGURE 2. Graph to show Degree in which the Elementary and Secondary Teachers in the Public Schools of Minnesota met Minimum Requirements as to Professional Qualifications, 1924-25. Rural Teachers Excluded.

Key:
I. Minneapolis.
II. St. Paul.
III. Duluth. The State High Schools
IV. 5 000 to 20.000 population.
V. 3 000 to 5,000 population.
VI. Less than 3,000 population.
VII. Range schools.
VIII. High School Departments.
IX. Graded Elementary Schools.

in the smaller graded and high schools, had spent comparatively little time in service. Where the median experience in years of the secondary teachers in the three cities, Minneapolis, St. Paul, and Duluth, was 10.4 years, it was but 2 years in the high-school departmental schools. For rural teachers, the median was 2.3 years. For all the teachers studied—rural, elementary, and secondary—the median experience was 4.9 years. Figure 1 reveals how the experience decreases as the school system becomes smaller. This holds true for all the groupings except that which includes the Iron-Range cities. Here conditions are unusual, since the mines bring in large tax revenues which result in wonderful school buildings, excellent salaries, and improved teaching conditions.

Table II summarizes data with regard to experience of teachers, principals, and superintendents. It should be mentioned here that several samplings were made of the experience of elementary teachers, with the result that one in every three in regular order was used as found on the qualification blanks studied.

TABLE II

Summary of Experience of Teachers in the Public Schools of Minnesota, 1924-25

Grouping	Experience in Years Mean	Median	Cases Studied	Total Number Employed
Rural teachers	3.00	2.3	1,914	8,541
Elementary teachers	8.70	6.9	2,713	8,621
Secondary teachers	6.30	4.7	3,544	4,392
Elementary and Secondary teachers	7.40	5.7	6,257	13,013
All teachers	6.36	4.9	8,171	21,554
Elementary Principals	24.20	26.0	169	169
High-School Principals	6.40	5.2	246	257
Superintendents	12.60	12.3	250	257
Principals[a]	7.30	6.0	205	214

[a]These principals are in reality superintendents of high-school departmental schools but are thus designated in official reports.

In Table II, data are given for the elementary principals in the three cities of Minneapolis, St. Paul, and Duluth only. Those in other schools were not included because they were usually not listed as such in the reports. If experience means anything, these elementary principals in the three cities of the first class are amply qualified, the median experience being 26 years. High-school principals rate rather low in experience, due to the fact that this position, especially in the smaller schools, is a mere stepping-stone to some other work. If there is a distinct profession for high-school principals, it must exist in the large schools, for in the small systems the principal often teaches four or five classes while performing the clerical work of the position. The superintendent is the real principal of the high school insofar as administrative and supervisory duties are concerned. The superintendents of state high schools are found to have a median experience of 12.3 years, which rates them favorably when compared with those reported by Douglas[4] for the United States as a whole. He found that 16.1 years was the median for superintendents in cities between 2,500 and 5,000 population. Since the present study included superintendents in towns of less than 2,500 population, the median obtained, namely, 12.3 years, is favorable. Evidently, the position of superintendent is more permanent than that of the high-school principal. The former position often is the next step in the advancement of an ambitious principal in a high school. While it is highly desirable that the principals of high schools should be members of a distinct and specialized branch of the teaching profession, yet the goal will not be attained in the average small school where there is room for but one educational leader, usually the superintendent.

Since the larger schools employ experienced teachers for the most part, those without experience must begin their teaching in the smaller schools. Hence, these latter schools are merely temporary stops for many instructors who are anxiously awaiting the day when they may be promoted to a large school system where the teaching conditions (not to mention social advantages) are presumed to be much better. Such a situation cannot fail to weaken the small institutions, for, with their best teachers recruited yearly by the large schools, they must attempt to maintain high standards with young, inexperienced teachers or with experienced ones who have failed to make good elsewhere. This condition can be remedied to some extent by paying better salaries and providing better living and teaching conditions in the small town. Very often a grade teacher is given two grades, while a high-school teacher may have classes to teach in several unrelated-subject groups. In the large school system, one grade or work in one high-school-subject group is assigned. To compensate for this condition, the small school systems must pay relatively better salaries than the large ones, in addition to offering other inducements.

That the rural school offers but temporary inducements to the average rural teacher is revealed clearly when it is remembered that the median service is but 2.3 years for the group. In Minnesota, the high-school teacher-training departments for teachers are found throughout the state. After graduation from a four-year high school, a fifth year must be spent in one

[4]Douglas, B. C., The Professional and Economic Status of the City Superintendent of Schools in the United States. Columbia University, New York, 1923.

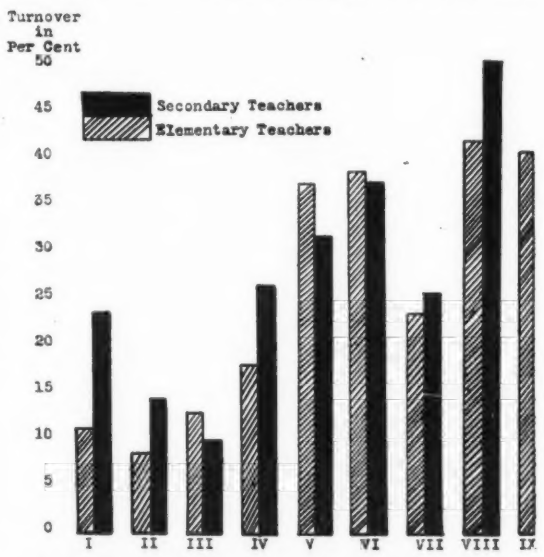


FIGURE 3. Graph showing the rate of Turnover for Elementary and Secondary Teachers in the Public Schools of Minnesota. Rural Teachers Excluded.

Key:
I. Minneapolis.
II. Saint Paul.
III. Duluth. State High Schools.
IV. 5 000 to 20,000 population.
V. 3 000 to 5,000 population.
VI. Less than 3,000 population.
VII. Range schools.
VIII. High-School Departments.
IX. Graded Elementary Schools.

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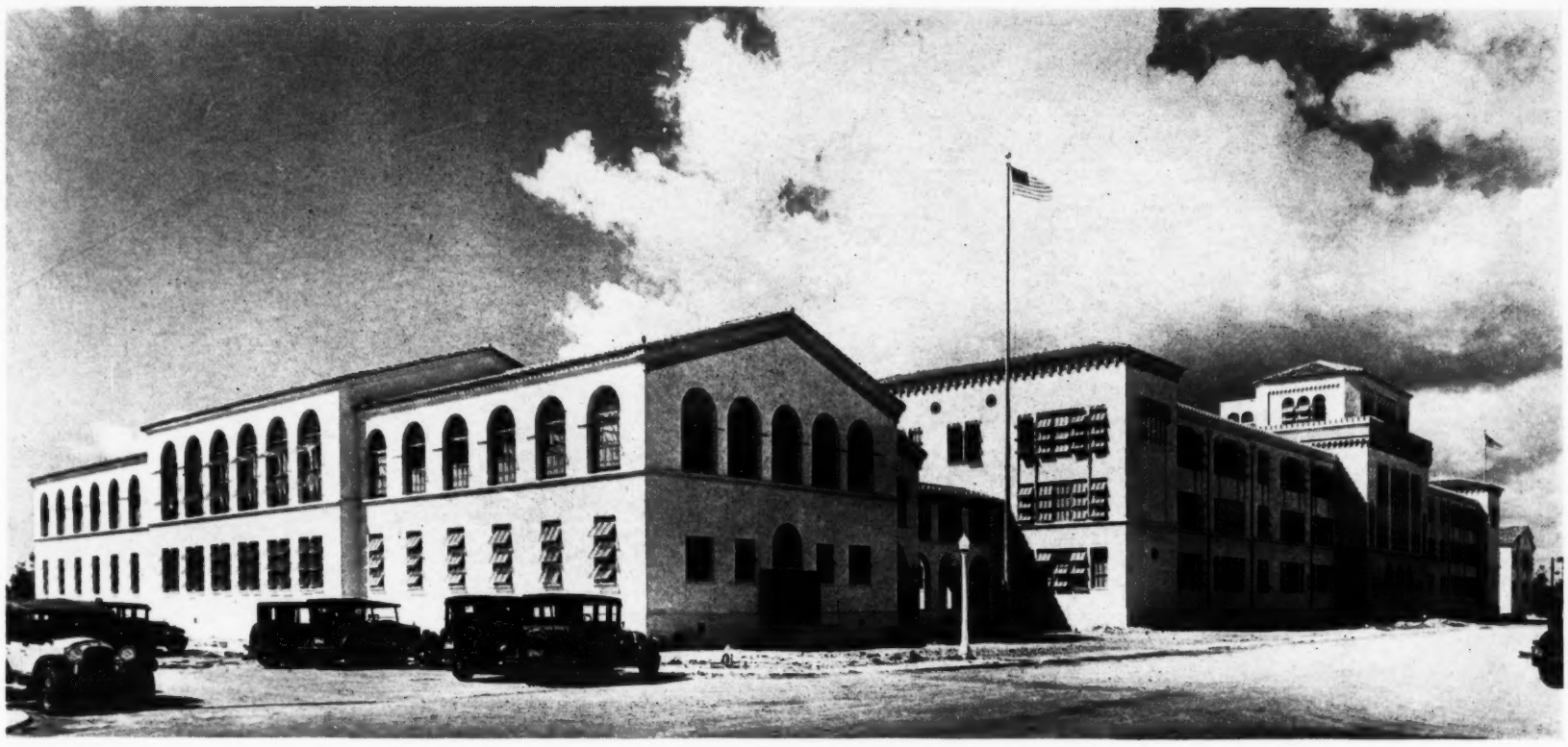
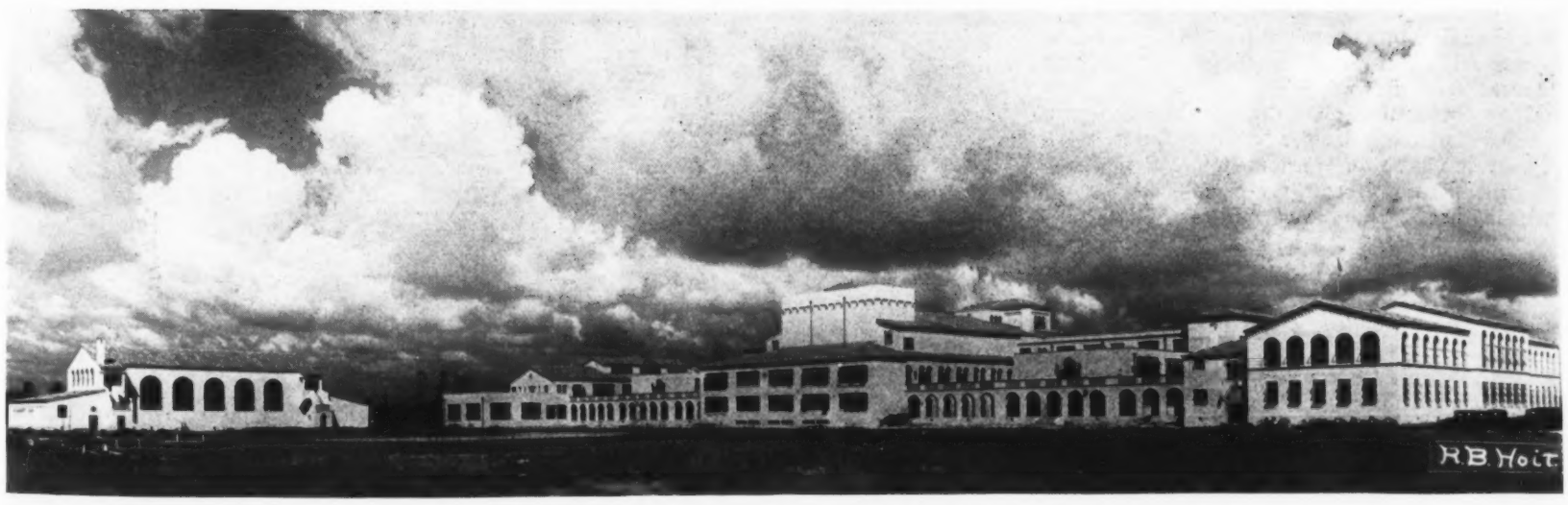


FRONT AND EAST ELEVATION, MIAMI SENIOR HIGH SCHOOL, MIAMI, FLA.
Kiehnel & Elliott, Architects, Miami, Fla.

FRONT AND WEST ELEVATION, MIAMI SENIOR HIGH SCHOOL, MIAMI, FLA.
Kiehnel & Elliott, Architects, Miami, Fla.



REAR VIEW OF MAIN BUILDING AND GYMNASIUM, MIAMI SENIOR HIGH SCHOOL, MIAMI, FLA.
Kiehnel & Elliott, Architects, Miami, Fla.

COURT YARD, MIAMI SENIOR HIGH SCHOOL, MIAMI, FLA.
Kiehnel & Elliott, Architects, Miami, Fla.

MIAMI SENIOR HIGH SCHOOL

Ray L. Hamon, Director of School-Building Construction, Dade County, Florida

During the past three years Miami, Fla., with its surrounding territory, has experienced an unprecedented growth. To solve the school-housing problem due to an enormous increase in enrollment, a three-year, $6,000,000 school-building program was launched in 1925. The writer was employed to administer the program, subject to the approval of the county superintendent and county school board. The major projects erected within the program are the Dade County Agricultural High School and the Miami Senior High School which is described and illustrated in the present article.

The firm of Kiehnel and Elliott, architects, of Miami and Pittsburgh, Pa., were selected as architects for the Miami Senior High-School project. The architects were made responsible for the architectural design, the structural and mechanical engineering, and the technical supervision of construction. The director of school-building construction has directed the educational engineering as to the size of rooms, the location of the various departments, and all questions pertaining to the planning from the standpoint of educational administration. The director has been in constant touch with the superintendent of schools, the principal, the department heads, and the supervisors of special subjects, and every effort has been made to plan each department to best fit its particular needs.

The guiding principles in the planning and designing of the high school have been serviceability, durability, and beauty, in the order named. There has been a happy blending of educational planning with good architectural design, demonstrating that there is no conflict between the two schools of thought when both are willing to cooperate.

The main building is of the E type, with two additional side wings. The building faces north and the five wings extend to the south, giving east and west light in the majority of the rooms. The rears of these five wings are connected on the first and second floors by open corridors. These arched passageways do not materially obstruct the prevailing southeast breezes which blow through the patios and during the hot season, serve to cool and ventilate the classrooms. Cement breeze grilles are placed above the blackboards on the right side of the classrooms to provide for the free circulation of air through the rooms and corridors. No heating system has been provided, as the Miami climate is so mild that artificial heat is unnecessary.

The plant has adequate accommodations for a senior-high-school student body of 2,500 in all departments.

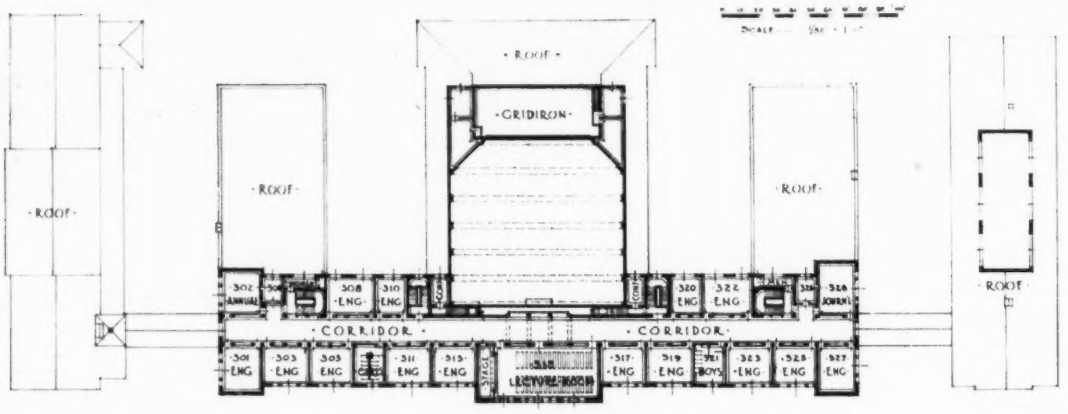
The contract price of the school plant was $1,120,000.

The building has the following provisions: 69 classrooms, 11 laboratories, 4 shops, a library, 2 study halls, a cafeteria, 12 conference rooms, a 230-capacity and a 1,290-capacity auditorium; a gymnasium, a custodian's apartment, a museum, administration offices, restrooms for men, women, boys, and girls, and ample toilet and lavatory facilities. The main building covers a five-acre city block, and the gymnasium and athletic field occupy an adjacent block.

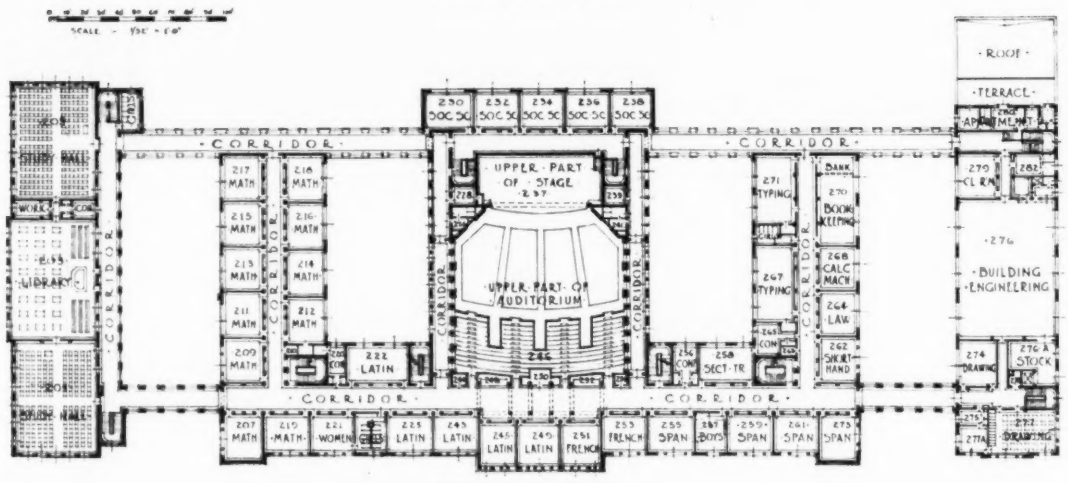
The building is of triple, Class A fireproof construction. The structural columns, girders, beams, and slabs are of structural steel and reinforced concrete. Curtain and partition walls are of terra-cotta tile. The roofs are constructed

AUDITORIUM, MIAMI SENIOR HIGH SCHOOL, MIAMI, FLA.
Kiehnel & Elliott, Architects, Miami, Fla.

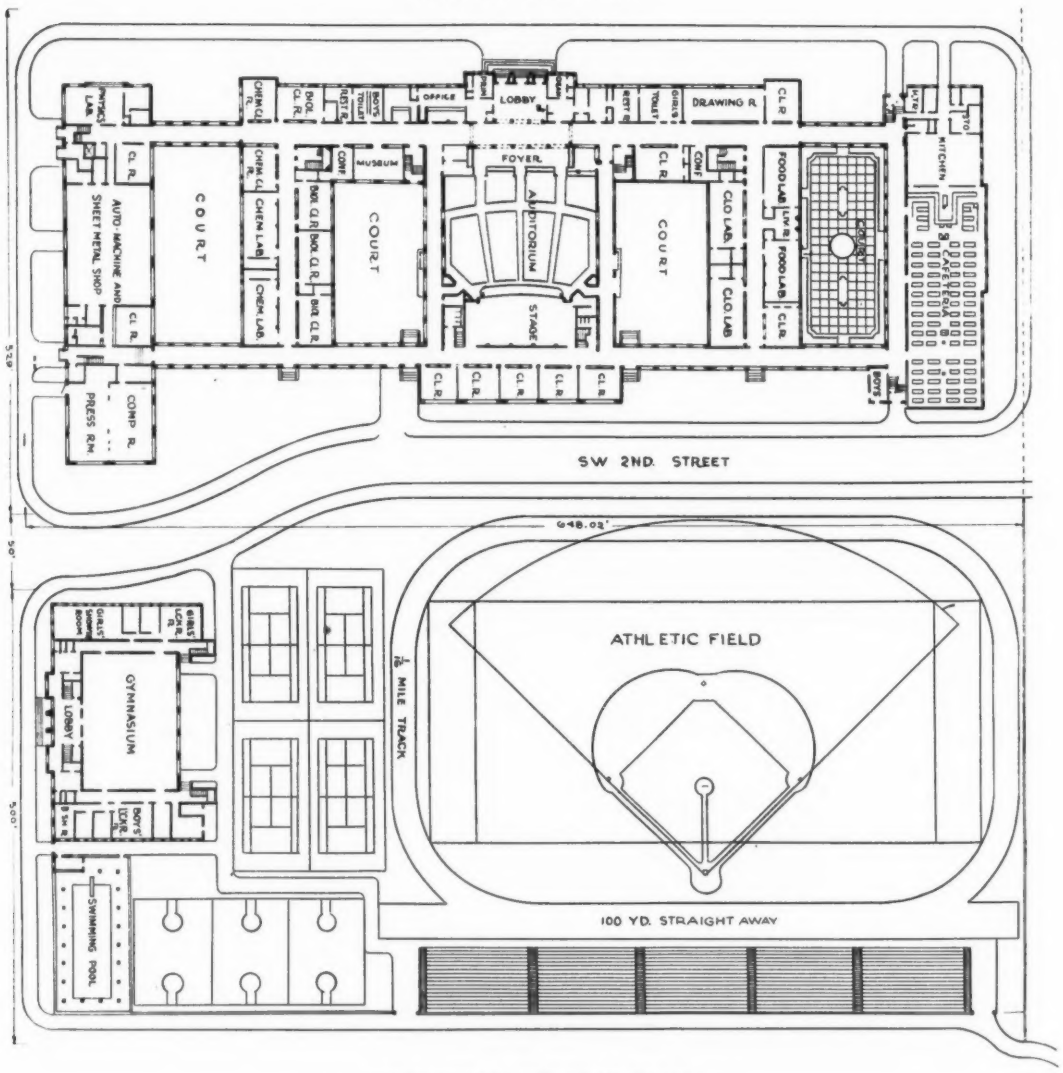
INTERIOR VIEWS OF THE MIAMI HIGH SCHOOL, MIAMI, FLA.
Kiehnel & Elliott, Architects, Miami, Fla.
First row, Library and Girls' Study Hall; Second row, A Typical Classroom and Architectural Drafting Room; Third row, Gymnasium and Press Room of Printing Shop; Bottom row, General Office and Free-Hand Drawing Room.



THIRD FLOOR PLAN



SECOND FLOOR PLAN



FIRST FLOOR AND PLOT PLAN
MIAMI SENIOR HIGH SCHOOL, MIAMI, FLA.
Kiehnel & Elliott, Architects, Miami, Fla.

of concrete and gypsum slabs, with built-up and Spanish-tile covering. The toilet and shower-room floors and wainscoting are of ceramic tile; the corridor floors are of quarry tile; classroom floors are of edge-grain all-heart pine, and the floor coverings of offices, cafeteria, and library are of battleship linoleum.

The exterior of the building and the open corridors are finished in soft buff shades of Spanish stucco. The interior corridor wainscoting and lockers are finished in French gray. The building is set about 3 ft. above grade, and the pipes are hung below the first-floor slab so that they are always accessible for repairs.

The architecture is of the thirteenth century Sicilian type, modified to fit an educational plant. A beautiful architectural effect has been obtained by the lines of the building and the use of precast stone and Spanish tile. When the tropical landscaping has been completed, the entire plant will be one of the most beautiful in America.

The typical classroom is 22 by 26 by 12 ft., and is equipped with 28 single seats, a teacher's desk, a built-in bookcase, a reading table, and six chairs. Natural slate blackboards are installed on three walls of the mathematics rooms, the front walls only of laboratories, and the front and right walls of other classrooms. Each room has a 4 by 3½-ft. cork bulletin board. The typical classroom has five awning-type Donovan steel windows, arranged in a single battery 5 ft. from the front wall, 1 ft. from the rear wall, 4 ft. from the floor, and 2 in. from the ceiling. The glass area is equal to 21 per cent of the floor area.

The departmental idea has been carried out in the new Miami senior-high-school building. Each department, in addition to its regular classrooms and laboratories, has a conference or consultation room. These consultation rooms are for conferences of department heads with teachers, and teachers with students. All the rooms of each department are conveniently located together. In locating the various departments, special attention has been given to the relationship between the departments.

The music department occupies the fourth-floor tower and consists of a large choral room and two classrooms. The entire third floor is given over to English. This department has 16 classrooms, a dramatics and debating auditorium, and workrooms adjacent to the annual and journalism rooms.

The study-library department occupies the entire second floor of one wing. The boys' study hall has a seating capacity of 235, and the girls' study hall seats 253. Between the two study halls is a completely equipped modern library, with a seating capacity of 160. This department has a workroom and conference room.

The various academic departments have the following number of classrooms: mathematics, 11; social science, 10; Latin, 5; French, 2; Spanish, 4.

The commercial department has two typewriting rooms, a bookkeeping and banking room, a room for calculating machines, a classroom for commercial arithmetic and commercial law, a classroom for shorthand, and a room for secretarial training.

The boys' vocational department has two large, well-equipped printing laboratories, a building engineering shop, an auto-mechanics shop, two drawing rooms, two classrooms, and ample provisions for stockrooms, offices, and locker rooms.

The science department has a laboratory for physics, a physics classroom, two chemistry laboratories, two chemistry classrooms, four biology rooms, and a museum.

The home-economics department has two food laboratories, two clothing laboratories, a living room, a home-nursing room, and a classroom.

In the fine-arts department there is one standard-size classroom, and one double classroom. These rooms have running water, display cases, and display bulletin boards.

The cafeteria has a dining room which seats 600 persons. The students are fed in three 30-minute shifts. The cafeteria has a completely and fully equipped kitchen, a refrigeration plant, a storeroom, two dressing rooms, and an office.

The physical-education department has a complete gymnasium and athletic field. The gymnasium has a regulation basketball court, directors' rooms, shower rooms, toilets, and locker

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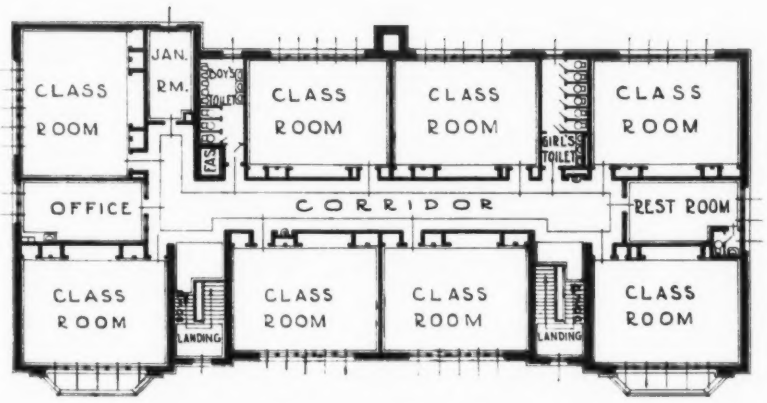
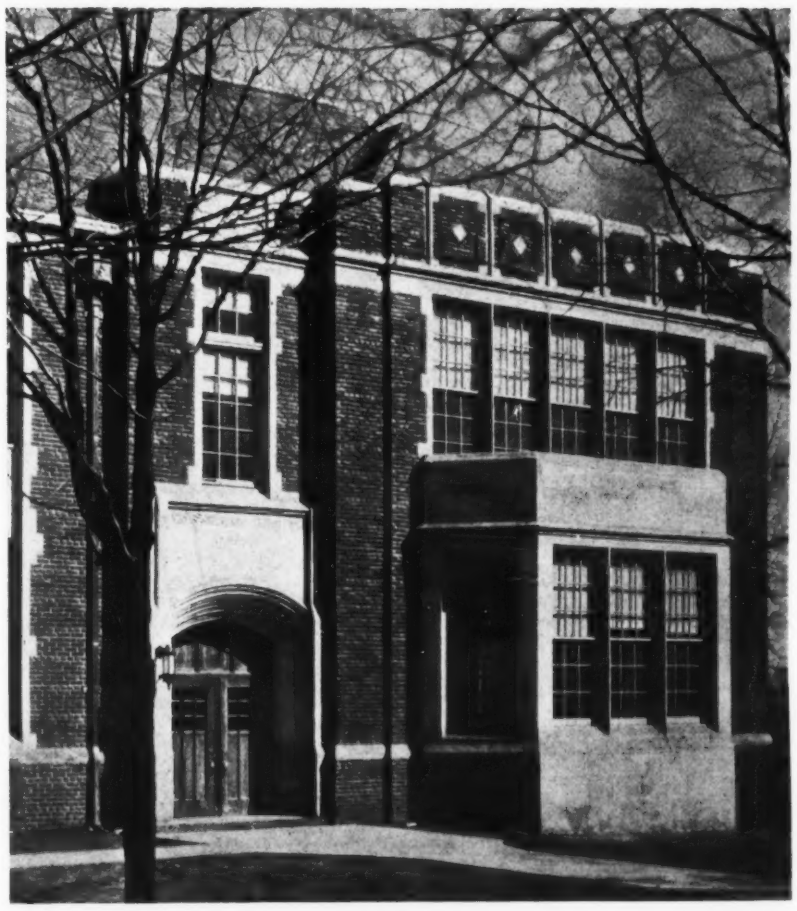
EXTERIOR, STARKWEATHER SCHOOL, PLYMOUTH, MICH.
Malcomson & Higginbotham, Architects, Detroit, Mich.



SECOND FLOOR PLAN

FIRST FLOOR PLAN

STARKWEATHER ELEMENTARY SCHOOL, PLYMOUTH, MICH.
Malcomson & Higginbotham, Architects, Detroit, Mich.



ENTRANCE DETAILS

The Starkweather Elementary School

A Description of the Michigan Bonding and Building Law in Operation

Alex. L. Trout, Detroit, Mich.

The state of Michigan has recently passed a new bonding law for school districts and municipalities. In the passage of the law, the state board of education and the Michigan investment bankers cooperated, with the result that Michigan securities of these classes have been placed on an excellent basis, with resulting low interest rates.

The Starkweather School, at Plymouth, illustrates the new school-bonding procedure in practical operation. Plymouth is located about 25 miles west of Detroit. It is a growng suburban community, with a population of about five thousand and an assessed valuation of eight million. It fortunately did some rebuilding in prewar days, so that its bonded indebtedness is small and its school facilities comparatively modern.

In the fall of 1926, the great need of Plymouth was a new elementary school in the east end of the town. Several years previous, a study had been made, and the study of available sites resulted in the selection and purchase of several desirable locations. These sites grew rapidly in value. Their widespread distribution quieted any possible feeling of sectional jealousy, and the entire procedure impressed the community with the wisdom and the forethought of the educational authorities.

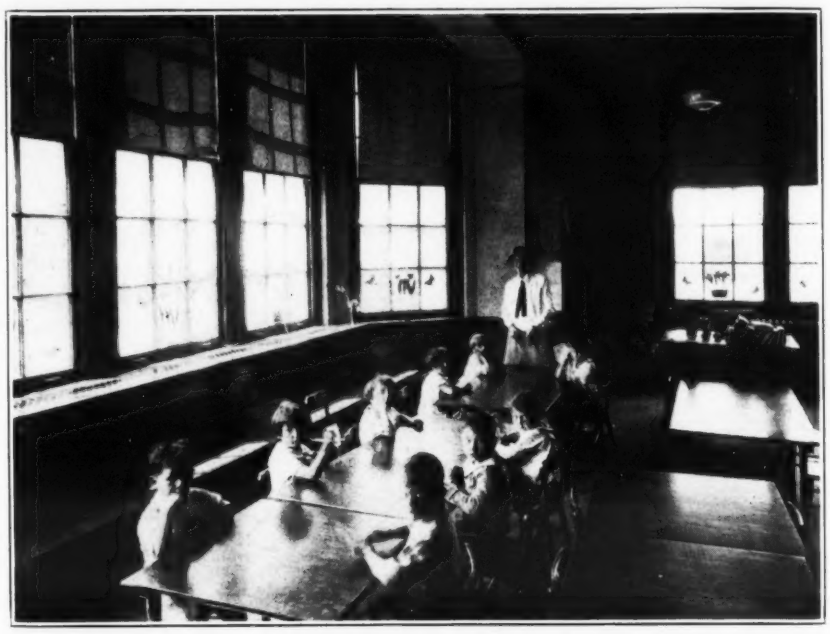
The Michigan law requires that before an election is called to authorize the issuance of school bonds, an architect shall prepare an estimate of the cost of the proposed building. Frequently these estimates are asked for on a more or less competitive basis. Sketches and plans are called for, and the architect who promises the most may get the work, irrespective of his ability to carry out his promises. The result is liable to be serious scrimping and cutting. If the building is kept within the estimate, inferior materials and workmanship are used, with resulting high costs of maintenance and repairs. Not infrequently the school board is put to the embarrassment of submitting another bond issue to the people, asking for funds to complete the building.

The Plymouth school board used a more satisfactory procedure. After careful inquiry, several responsible architectural firms were interviewed and a selection was made. No estimates were made until after a careful study of the site and the building needs. With this data at hand, the financing was studied.

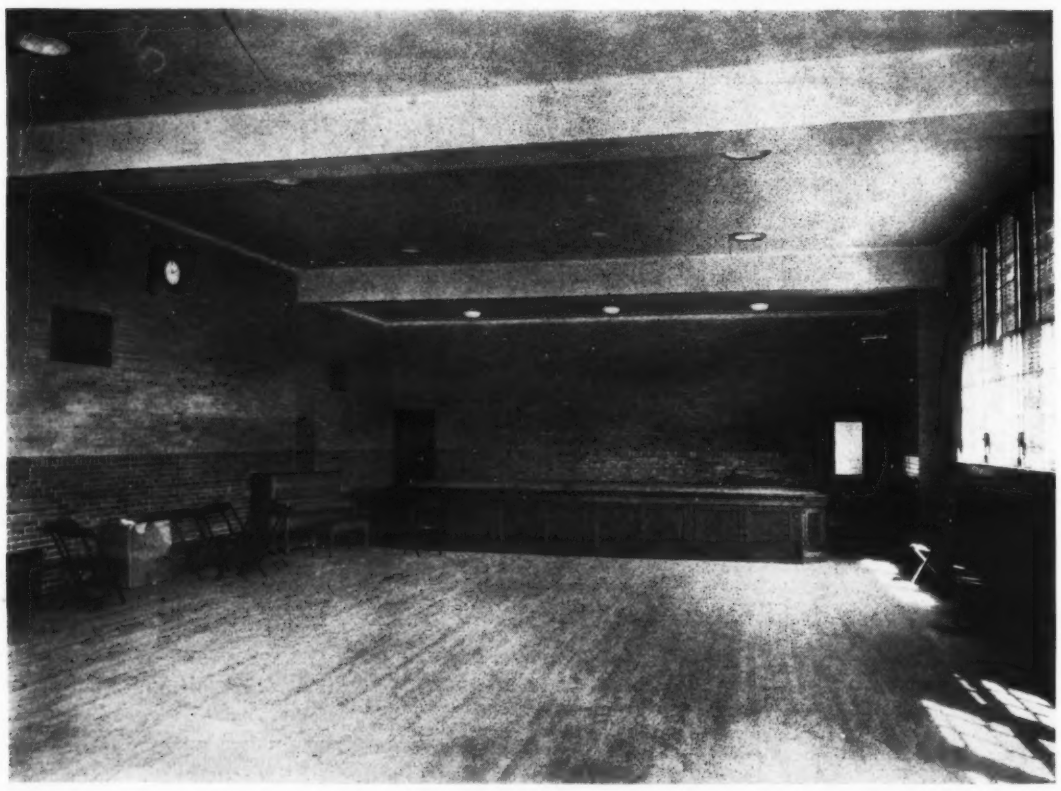
The new Michigan law discourages the "sinking fund" bond issues of unsavory reputation. In their place, it encourages the use of serial issues. In this plan, the entire bond issue is paid off in small but increasing annual payments of principal. As the principal payments are made, the interest automatically decreases. The aim of the plan is to keep interest plus principal payments nearly constant within the life of the bond issue. School bonds under the law may extend over a period of 30 years. With current interest rates about 4.50 per cent, principal and interest payments will average very close to 6.04 per cent over the 30-year period. The law requires that the minimum annual principal payment shall be not less than one third of the maximum. This provision practically enforces the plan worked out. The demand on the public treasury which is uniform year by year, is readily anticipated. There is no disagreeable problem of caring for sinking-fund investments, or of the all-too-frequent sinking-fund manipulation.

Having determined the cost of the school and the financing policy, it is a simple matter to work out the effect upon taxation. In the case of Plymouth, bonds were issued to the extent of $148,000. Payments on the principal began at $3,000 and increased to $8,000. The average of interest, plus principal, is $9,000, varying slightly from this amount so that bonds are all issued in even denominations of $1,000.

The Michigan law requires that bonds shall be sold at public sale and shall not be sold at a price below par. To meet this condition, bids are generally asked for on a basis of 4¼, 4½, and 4¾ per cent, the bonds being sold on the per-cent basis which the board selects, generally the lowest rate above par. As Professor Clark pointed out, in a recent article in the SCHOOL BOARD JOURNAL,[1] the selection of a bond with the lowest practical interest rate, and selling at as near par as possible, is a desirable procedure.



KINDERGARTEN, STARKWEATHER SCHOOL, PLYMOUTH, MICH.
Malcomson & Higginbotham, Architects, Detroit, Mich.



COMMUNITY ROOM, STARKWEATHER SCHOOL, PLYMOUTH, MICH.
Malcomson & Higginbotham, Architects, Detroit, Mich.

With information as to the effect on taxation, the school board and the superintendent interviewed the bankers and leading citizens of the community and obtained their indorsement of the plan.

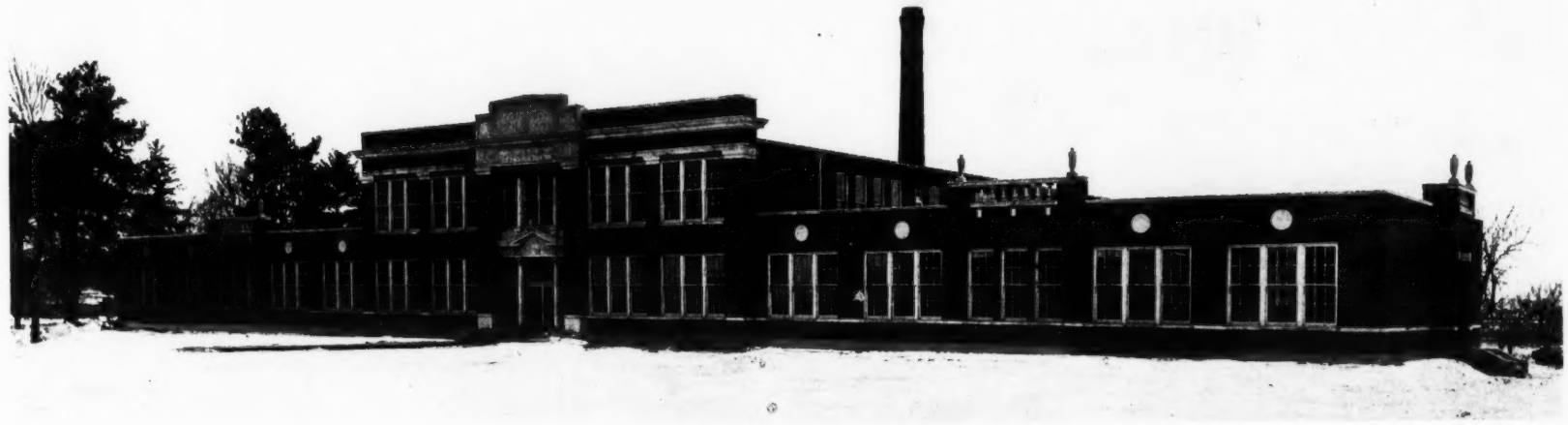
These important facts were given as wide publicity as possible.

1. The increase in the school tax would not be serious, and would be practically offset by the natural increase in assessments due to the growth of the community.

2. The present building is greatly needed in its particular location, but the expenditure is not so great as to in any way impair the credit of the community, or interfere with future buildings on sites already selected.

The Michigan law allows bonds up to 15 per cent of the assessed valuation of the school district. Outstanding bonds amounted to but 2 per cent; the current issue to 2 per cent; contemplated projects over a ten-year period probably would not exceed 10 per cent of the present assessed valuation, and would care for a

[1] SCHOOL BOARD JOURNAL, July, 1928, P. 69.



COMMUNITY HIGH SCHOOL, MARENGO, ILL.
Peterson & Johnson, Architects, Rockford, Ill.

growth of 50 per cent in school attendance, with a similar increase in assessed valuation. The soundness of the policy is, therefore, amply shown.

That Plymouth appreciated the method of approach was shown in the vote for the bond issue. With an active opposition, and a heavy vote, the school bonds were approved by a six-to-one vote. With the bond issue practically passed, it only remained for the architects to refine the sketches and develop the working drawings.

The state board of education approves the sketches, and also approves the finished plans. Ample light, ventilation, and toilet facilities must be provided. Less usual but very desirable regulations require that sketches shall show a satisfactory method of future expansion. Basement rooms for teaching purposes are not allowed.

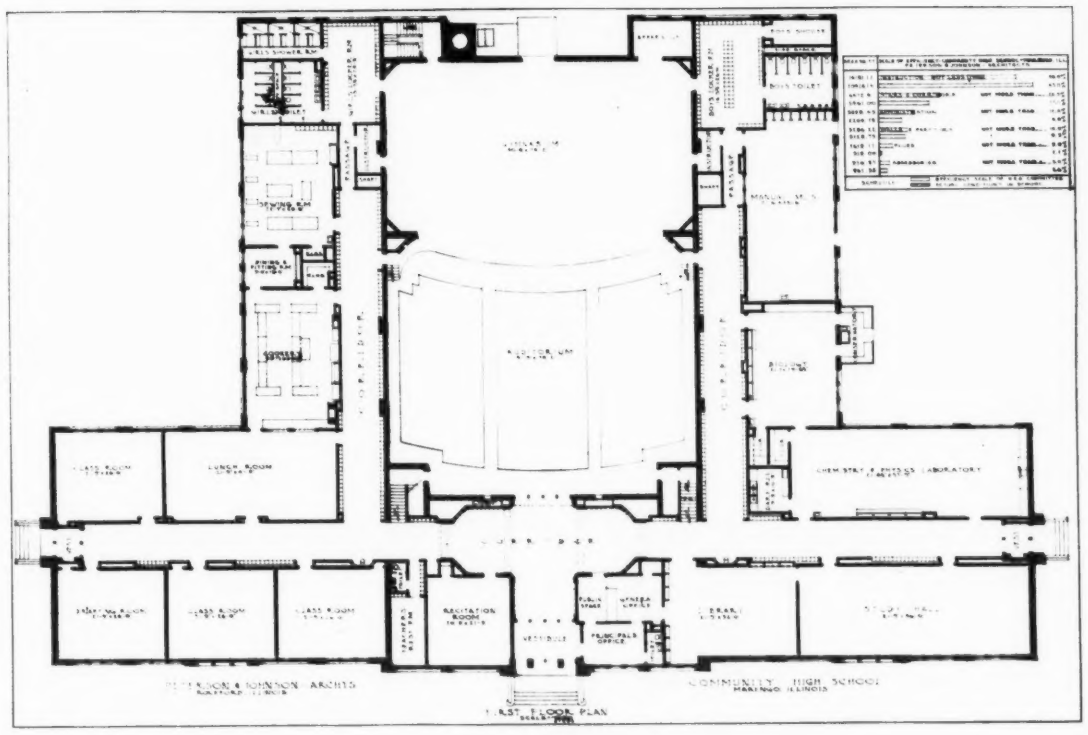
While the Starkweather plans are simple, certain features may be noted. It has twelve grade rooms for the first six grades, a kindergarten, and a small combined auditorium and gymnasium which is called a "community room." The kindergarten can be used as a clubroom, and as a summer reading room. It is adjacent to the school library. The community room finds a great variety of school use for special instruction in music and drawing, as well as for the usual elementary games and gymnastics. Community use for lectures, movies, plays, and social gatherings is rapidly increasing. Facilities are provided back of the stage for health clinics and physical examinations.

The natural slope of the ground provides needed head room in the community room. A ramp in the corridor of the first floor provides for the required change of level. Keeping the auditorium within the rectangle of the building effects a considerable saving. This particular plan would not be practical on a level site.

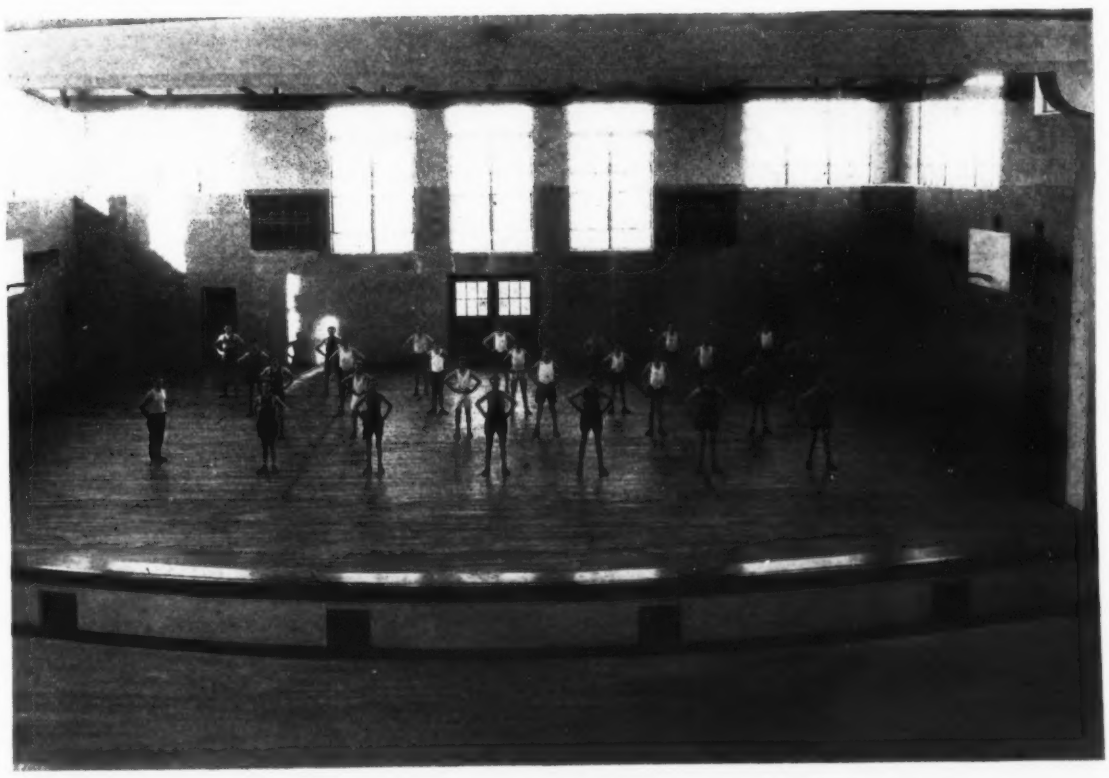
(Concluded on Page 122)

AN ILLINOIS COMMUNITY HIGH SCHOOL
The New Building at Marengo, Illinois

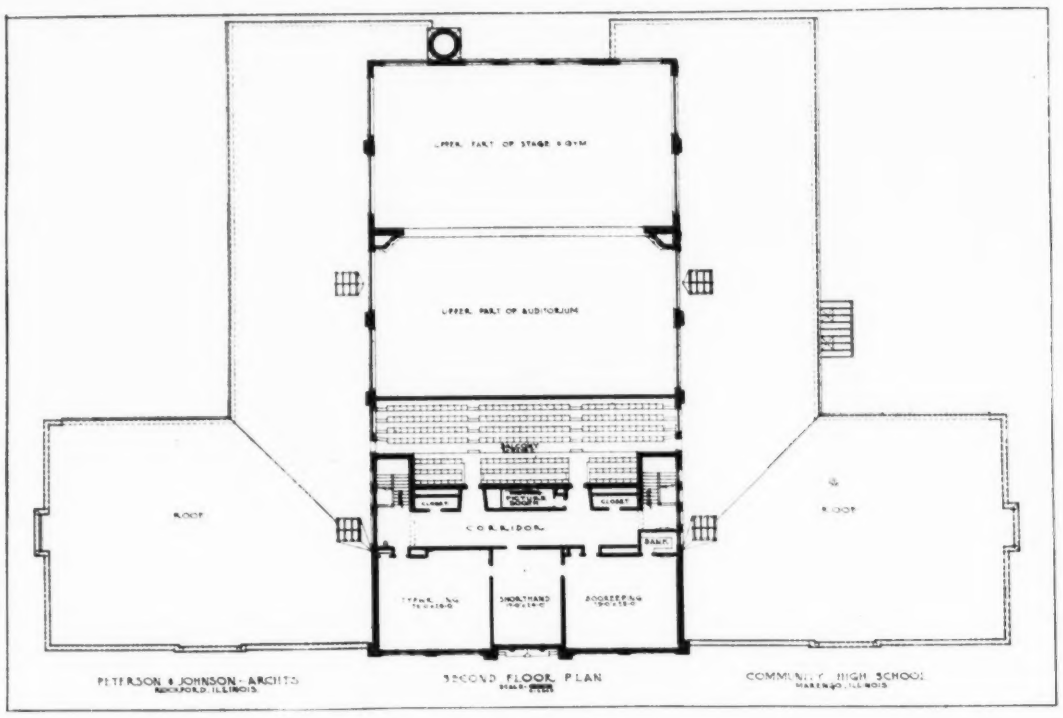
The community high school as a special form of school organization has been developed in Illinois to a degree of efficiency and service that is approached in no other state. As its name indicates, this type of school serves a community which is drawn together by geographic and economic conditions and which has common interests from the standpoint of production, trade, transportation, administration, etc. Usually the community high-school district includes a village, or a small city, which is the natural center of a farming or mining area and which has those facilities of transportation, mutual interests in markets and trade, and even racial unity that make for true community values. The community high schools of Illinois have not been promoted as a means of reducing school costs. They have been based on a sounder economy, namely, an enriched opportunity for service and for a broader educational program.

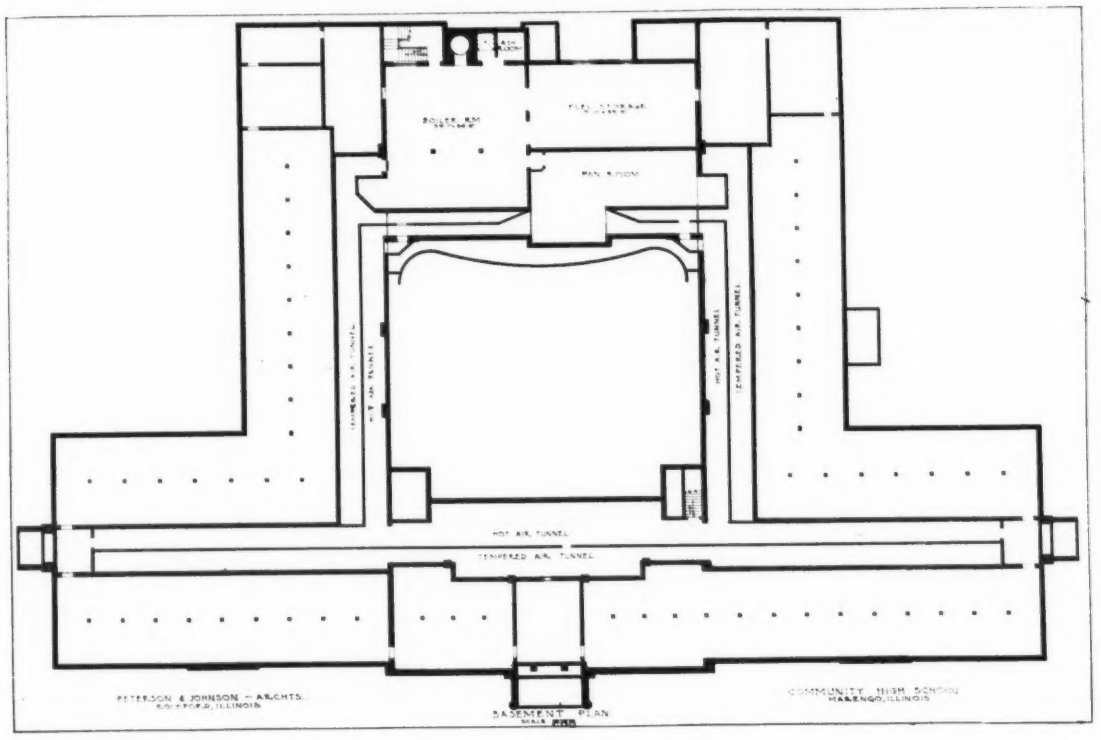


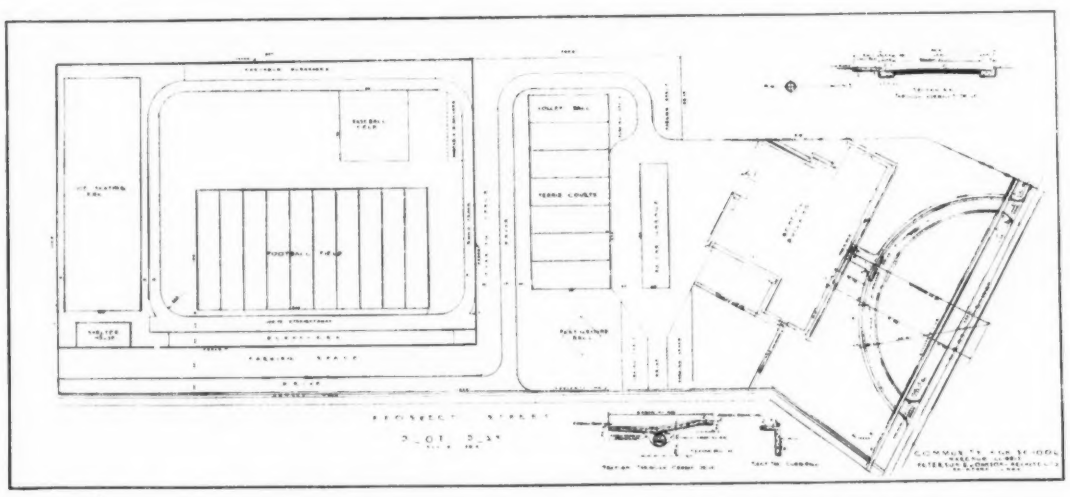
FIRST FLOOR PLAN, COMMUNITY HIGH SCHOOL, MARENGO, ILL.
Peterson & Johnson, Architects, Rockford, Ill.



GYMNASIUM ON AUDITORIUM PLATFORM, COMMUNITY HIGH SCHOOL, MARENGO, ILL.
Peterson & Johnson, Architects, Rockford, Ill.





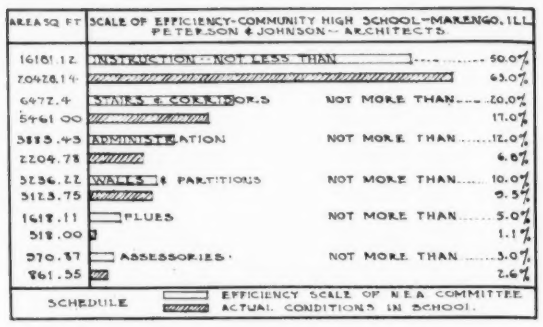


PLOT AND FLOOR PLANS, COMMUNITY HIGH SCHOOL, MARENGO, ILL.
Peterson & Johnson, Architects, Rockford, Ill.

The new high school at Marengo is typical in some respects of the completeness of the plant which is being required for high-school purposes. The building is truly a community center and serves far more than the educational needs of a growing high-school population. The building provides a center for various community activities and is used for civic meetings and social gatherings.

The building is planned without a basement except for service areas used for the heating and ventilating apparatus.

The first floor contains, across the front, the administrative offices, the classrooms for academic studies, a library, a study hall, a labora-



EFFICIENCY OF THE MARENGO COMMUNITY HIGH SCHOOL

tory for physics and chemistry, and a lunchroom. In the very center of the building is the auditorium, and flanking it on both sides are the shops, workrooms, toilets, and shower and locker rooms.

The second floor of the building contains the upper part of the auditorium with a large balcony and three rooms for the commercial department.

The building has a total pupil capacity of 300; the auditorium has a seating capacity of 874; and the cafeteria will accommodate 80 children at one sitting.

The auditorium is so arranged that the stage serves as a gymnasium. When the large steel curtain which separates the stage from the auditorium is opened and the scenery is removed, the gymnasium has a total floor area of 40 by 75 ft. The arrangement is such that every part of the gymnasium can be seen clearly from every seat in the auditorium. When the stage scenery and curtains are in place, the stage measures 24 ft. deep by 36 ft. wide. The auditorium is amply lighted by windows in the upper half of the side walls. The gymnasium is similarly lighted.

The building is heated by means of a steam plenum system which carries hot and tempered air to every classroom, shop, etc. The temperature throughout the building is automatically regulated.

The efficiency of the building from the standpoint of planning will be a little better appreciated when the accompanying schedule of areas is studied. It is truly remarkable to find that the building has 63 per cent of its entire floor area devoted directly to instructional purposes.

The building was planned and erected under the supervision of Messrs. Peterson and Johnson, Architects, Rockford, Illinois.

Construction Data

Date contract awarded	November, 1924
Site	
Dimensions	248 by 158 ft.
Principal frontage	248 ft.
Building	
Use	Senior high school
Classrooms	4
Library	1
Offices	2
Teachers' restroom	1
Study room	1
Domestic-arts rooms	2
Cafeteria	1
Commercial department	3
Manual-arts rooms	1
Laboratories	2
Auditorium-gymnasium	74 ft. 2 in. by 103 ft. 9 in.
Seating capacity	800
Design and Construction Materials	
Exterior facing	Brick
Exterior trim	Stone
Construction materials	Brick walls, steel girders, wood floors, and partitions
Corridor and stair finish	Terrazzo floor and stairs
Classroom finish	Oak
Auditorium finish	Plaster
Gymnasium finish	Brick and plaster
Finish of toilet rooms	Tile and Plaster
Mechanical Equipment	
Type of heating and ventilation	Split system
Temperature control	Automatic
Electrical equipment	Complete system
Cost and Pupil Capacity	
Cost of building	$131,700
Total cost	$131,700
Cost per cu. ft	20.19 cents

Standards for Elementary Schoolrooms

Compiled by Samuel A. Challman, State Director of School Buildings for Minnesota

This compilation of standards in regard to elementary schoolrooms is far from complete for the country as a whole, but it is, nevertheless, indicative of the general tendency in regard to the items that should be covered by regulations. The sources of information to which references have been made in the compilation are the following:

Connecticut: Laws relating to the Construction of Schoolhouses, 1926. State Board of Education, Hartford.

Delaware: Minimum Standards for School Buildings and Sites, 1927. Department of Public Instruction, Dover.

Indiana: Rules and Regulations of the Indiana State Board of Health, Governing the Construction, Equipment, and Maintenance of Sanitary Features of Public and Parochial School Buildings, 1915. State Board of Health, Indianapolis.

Massachusetts: Regulations Relative to the Inspection of Buildings which are Subject to the Provisions of Chapter 143, General Laws, Form B-1, Division of Public Safety, Boston.

Michigan: Rural Schoolhouses, Building Plans, Requirements, Suggestions, 1923. Department of Public Instruction, Lansing.

Minnesota: Laws and Rules Governing School Buildings and Sites, 1928. Department of Education, St. Paul.

Nebraska: Rural-School Standards, 1927. Department of Public Instruction, Lincoln.

New Jersey: Building Code comprising the Law and the Rules and Regulations of the State Board of Education concerning Public-School Buildings, 1925. Department of Public Instruction, Trenton.

New York: Laws, Rules, and Regulations Relating to School-Building Construction, 1925. Department of Education, Albany.

North Dakota: Laws and Regulations Governing the Construction and Sanitation of School Buildings, 1926. Department of Public Instruction, Bismarck.

Ohio: State Building Code. School Buildings, 1926. Department of Industrial Relations, and the Industrial Commission, Columbus.

Pennsylvania: Rules and Regulations in Regard to Schoolhouse Construction, 1917. Department of Public Instruction, Harrisburg.

Utah: School-Building Code, 1927. Department of Public Instruction, Salt Lake City.

Virginia: Minimum Requirements and Standards for School Buildings, 1928. Department of Public Instruction, Richmond.

Wisconsin: Building Code, 1925. Industrial Commission, Madison.

Wyoming: Standardization of Rural Schools, 1921. Department of Public Instruction, Cheyenne.

1. THE SIZE OF CLASSROOMS

Connecticut. The size of classrooms should not exceed 24 ft. in width and 32 ft. in length, with five rows of eight single desks and seats accommodating 40 pupils in a room.—Conn., 1926, Sec. 951.

Delaware. Classrooms shall be rectangular in shape, approximately 23 by 31 ft.—Del., 1927, p. 20.

Indiana. No study classroom shall exceed 25 ft. in width.—Ind., 1915, p. 2.

Michigan. The largest dimensions for a schoolroom should be: length 32 ft., width 24 ft., height 13 ft. The smallest dimensions for a schoolroom should be: length 28 ft., width 19 ft., height 12 ft.—Mich., 1923, p. 8.

Minnesota. Schoolrooms providing seating capacity for 30, 35, or 40 pupils, shall be accepted as complying with all requirements where standard sizes are specified. No such room, however, shall be less than 21 nor more than 23 ft. wide, nor less than 24 nor more than 32 ft. long.—Minn., 1928, Sec. 14.

Nebraska. A room 29½ ft. long and 23 ft. wide (inside measurements), with a 12-ft. ceiling, will be large enough for 40 pupils. A room 28 ft. long and 22 ft. wide with a 12-ft. ceiling will be large enough for 30 pupils.—Nebr., 1927, p. 27.

New York. A width of 22 ft. between walls will provide space for five rows of single desks and six aisles. Classrooms should be rectangular in plan, with the windows at the left of the pupils, the walls at the right and front reserved for blackboards. The following dimensions are recommended:

For 40 pupils, 22 by 30 by 12. ft.

For 35 pupils, 22 by 27 by 12 ft.

For 30 pupils, 22 by 24½ by 12 ft.

For rural schools it is sometimes advantageous to provide rooms of less width and height. The following dimensions are recommended for such cases:

For 32 pupils, 19 by 30 by 11 ft. 4 in.

For 28 pupils, 19 by 27 by 11 ft. 4 in.—N. Y., 1925, p. 9.

North Dakota. The most satisfactory inside dimensions of the ordinary schoolroom have been found to be: For every 30 pupils, 21 by 23 ft.; for every 35 pupils, 21 by 27 ft.—N. Dak., 1926, p. 11.

Pennsylvania. Elementary and grade classrooms should measure 23 by 30 ft., and at least 12 ft. high. A room 25 by 32 ft., with minimum ceiling height of 12 ft. is approved for 40 pupils.

The width of the classroom shall not exceed twice its height.—Pa., 1917, III, 1 (*a*) and (*b*), pp. 7, 8.

Virginia. Width of standard classroom, 22 ft. Length of standard classroom, 28 ft.—Va., 1928 X (*a*).

Wisconsin. Each classroom should be large enough to accommodate 45 pupils and should be at least 23 by 32 ft.—Recommendation by the Department of Public Instruction in Wisconsin Building Code, 1925, p. 107.

2. HEIGHT OF CEILING

Connecticut. Ceiling should be not less than 12 ft. in the clear.—Conn., 1926, Sec. 951.

Indiana. The ceiling shall be not less than 12 ft. nor more than 13 ft. in height.—Ind., 1915, p. 2.

Minnesota. No schoolroom shall be less than 12 ft. in height, except that small rural schools providing for 20 pupils or less may be erected with ceilings 10 ft. high.

Utah. Classroom ceiling shall not be less than 12 ft.—Utah, 1927, Chap. II.

Virginia. No classroom ceiling shall be less than 12 ft. above the floor.—Va., 1928 X (*b*).

3. DOORS

Connecticut. Doors of classrooms should be not less than 36 in. wide and swing outward into corridors.—Conn., 1926, Sec. 951.

No door leading from a schoolroom into a hall or corridor shall, during school hours, be locked or bolted or secured in any other manner than by a spring which will readily yield to pressure from the inside.—Conn., 1926, Sec. 2614.

Delaware. Classroom doors approximately 3 by 7 ft. in size with the upper half of clear glass shall be used, these shall swing out into the corridor, locks arranged to fasten from the outside only shall be used.—Del., 1927, p. 20.

Minnesota. Each schoolroom shall have a door at least 3 by 7 ft., made to swing out, placed preferably near the teacher's end of the room.—Minn., 1928, Sec. 21.

New York. Classroom doors should be located if possible at the end of the room near the teacher's desk and should swing into the room. It is recommended that the upper panels of these doors be glazed with either clear or obscure glass.—N. Y., 1925, p. 11.

Utah. Exit doors of single rooms containing not more than 40 pupils may swing into corridor or room as desired. Rooms seating more than 40 pupils shall have the doors swing out.—Utah, 1927, Chap. II.

4. SEATING CAPACITY

Delaware. All classrooms shall provide for each child at least 18 sq. ft. of floor space and at least 200 cu. ft. of air space.—Del., 1927, p. 20.

Michigan. In determining the size of the room needed, allow at least 15 sq. ft. of floor space for every pupil to be seated. In order that proper ventilation may be secured, there must be at least 200 cu. ft. of air space for each pupil.—Mich., 1923, p. 8.

Minnesota. The maximum seating capacity of any schoolroom shall be determined by allowing 16 sq. ft. per pupil.—Minn., 1928, Sec. 15.

Nebraska. There shall be 15 sq. ft. of floor space and 200 cu. ft. of air space per child.—Nebr., 1927, p. 27.

New York. The commissioner of education shall not approve the plans for the erection of any school building or addition thereto or remodeling thereof unless the same shall provide at least 15 sq. ft. of floor space and 200 cu. ft. of air space for each pupil to be accommodated in each study or recitation room therein.—N. Y., 1925, p. 4.

Pennsylvania. Every schoolroom shall have not less than 15 sq. ft. of floor space, and not less than 200 cu. ft. of air space per pupil.—Pa., 1917, p. 8, Code 618.

Utah. No classroom shall have a seating capacity of more than 40 pupils. The seating capacity of such rooms shall be determined by allowing a minimum of 15 sq. ft. of floor area per pupil for elementary schools.—Utah, 1927, Chap. II.

Virginia. In arranging the seating of pupils a minimum of 15 sq. ft. of floor space and 175 cu. ft. of air space shall be provided per pupil.—Va., 1928, X (*e*).

Wisconsin. The minimum floor space of school or classrooms shall be:

For primary grades, 12 sq. ft. per person.

For grammar grades, 14 sq. ft. per person.

All others, 16 sq. ft. per person.

These are minimum requirements. A more liberal allowance of floor space (16 to 20 sq. ft. per person) is recommended.—Wis., 1925, Order 5611.

Wyoming. Twenty sq. ft. of floor space, 200 cu. ft. of contents per person.—Wyo., 1921, p. 5.

5. ISLES

Massachusetts. The aisles in class and recitation rooms, unless otherwise directed, shall be not less than the following width:

All center aisles, 1 ft. 5 in.

Wall aisles next to windows, 3 ft.

Other wall aisles, 2 ft. 6 in.—Mass., Form B-I, Part II, Sec. 6, Item 4.

Minnesota. Aisles next to walls of schoolrooms shall be from 30 to 36 in. in width. Aisles between rows of seats shall be from 18 to 24 in.—Minn., 1928, Sec. 16.

Wisconsin. Class and schoolrooms shall have aisles along all walls.

In primary rooms, intermediate aisles shall be not less than 17 in., and wall aisles not less than 2 ft. 4 in. in width.

In grammar rooms, intermediate aisles shall be not less than 18 in. and wall aisles not less than 2 ft. 6 in. in width.—Wis., 1925, Order 5616.

6. COATROOMS, WARDROBES, AND LOCKERS

Connecticut. Each classroom shall be provided with a cloakroom, vanishing door wardrobes or individual lockers, heated and ventilated.—Conn., 1927, Sec. 2600.

Delaware. Cloakrooms, wardrobes or lockers shall be provided with ample space to care for winter wraps of the pupils. They shall be under teacher control, easily accessible, and so arranged as to avoid confusion.—Del., 1927, p. 21.

Minnesota. A coatroom, 5 ft. wide, with an outside window having a net glass area of 1 sq. ft. to every 10 sq. ft. of floor area and connected to each schoolroom by means of one or two cased openings is recommended for all elementary schools. Wardrobes, properly ventilated, and lockers of a sanitary type may be accepted in lieu of coatrooms.—Minn., 1928, Sec. 20.

New Jersey. Ample cloakrooms shall be provided. They should be well lighted, ventilated, and heated. They should be provided with a sufficient number of hooks so that each pupil may have one for his individual use. These hooks should be placed low enough so that the young children can readily reach them.—N. J., 1925, Sec. 56.

New York. Elementary classrooms shall have wardrobe rooms or built-in wardrobes connected with each room with ample space to provide accommodations for the maximum room capacity. These should be ventilated and equipped with coat hooks, hat and bookshelf, and suitable means to care for umbrellas. Wardrobes should be located at the rear of the classroom where possible.—N. Y., 1925, p. 13.

Pennsylvania. No school building shall be erected without providing at least one coatroom. Separate rooms for boys and girls should be provided.

(Continued on Page 122)

THE AMERICAN
School Board Journal

WM. GEO. BRUCE
WM. C. BRUCE } EDITORS

EDITORIAL

PROFESSIONAL PRIDE AND THE DIGNITY OF LABOR

Pride and dignity are essentials in every professional career. The educator is supposed to live, dress, and comport himself in keeping with his calling. He must command the confidence and respect of those he aims to serve in order to be successful.

When one contemplates American life as it really is, the humble beginnings of men who excel as its leaders, the splendid struggle they have engaged in against ignorance and poverty, and against the vicissitudes that have surrounded them, it becomes, after all, a question of what the popular mind exacts in the way of professional pride and dignity. The American concept does not tolerate the professional highbrow any more than it does the social snob.

We have known of a highly successful high-school principal who began life as a coal heaver, another who served as a restaurant dishwasher in order to secure the means for an education. Many of the leading educators of this country had their beginnings on a farm or in a factory.

Some years ago the writer was in a group of educators in Germany where the subject of professional pride came under serious discussion, and where he recited some American experiences.

"How can a schoolmaster who was once a coal heaver or a restaurant dishwasher command the respect of the community?" asked a German Oberlehrer. "No man who has engaged in undignified manual labor can continue to serve as a professional educator in Germany. The schoolmaster who is caught engaged in undignified labor must retire from professional service."

That is the German conception of professional pride and dignity. In our own country honest labor disgraces no man. In fact, the man who struggles bravely against the exigencies that surround him, determined to earn and pay for all that he secures out of life, usually commands the respect of his fellowmen.

The exceptional case, however, comes to the surface. In Meriden, Conn., a high-school teacher named Harry French, took a summer job with a local garage. The local press announced in large type that the schoolmaster was serving as a car washer. Then there were those among the school officials who held that French's occupation was undignified. He simply replied, "I am earning my groceries."

In comment on the matter, the Chicago Journal says:

"There are two kinds of dignity in the Meridens mind, and in the mind of most of America. One is the dignity of labor, a phrase, used by people who do not work with their hands, to coddle and flatter those who do. Labor is described as dignified as long as it is kept in the abstract and at a distance; but the average housewife does not feel that she is hitching her wagon to a star when she is occupied with the dishpan or the scrubbing brush, and she would rather not have her husband seen mowing the lawn or washing the family car.

"On the other hand, the parent likes to feel a consciousness of the dignity of teaching. Teachers should have white fingers as well as white collars. The teacher should know his place, of course, and be properly grateful for any little social attention, but he should also keep his place by not soiling his hands with dirty work. That makes him common, and unworthy to dispense knowledge to Willie and Mary.

"If the Meridens of the country cannot afford to raise the salary scale for their teachers—if they cannot increase $2,970 to an even $3,000—they should not interfere with their teachers in the two months when they pay them nothing at all. But if the Meridens feel that the dignity of the community is involved in the vacation conduct of their teachers, they should pay them enough to let them sit on the front porches while other people wash the cars that they can afford to buy."

The immediate question presumably is whether a good car washer can also be a good schoolmaster. The larger issue, however, is whether the educator shall cling to the American idea which contends that all honest labor is dignified. If the spirit of equality and democracy has a place in the schools, then it follows, too, that honorable toil cannot be discountenanced. The dignity of labor has been exalted in American life as it has nowhere else in the civilized world. The American school child has been taught to respect the soil as well as the toil of labor. A pair of overalls has been deemed as important as the black cutaway coat. In fact, the one has been regarded as the prerequisite to the other. Professional pride, in order to conform to the American spirit, must recognize the dignity of labor.

THE INTRODUCTORY STAGES OF TEACHER TENURE

The teachers of California have, with commendable enterprise, brought a teacher-tenure law into being, the operation of which is now being watched with considerable interest. The first sign of the existence of the law was found in the impatience manifested by several boards of education who had planned some dismissals. The prospect of engaging in a public hearing and submitting charges in order to drop a teacher did not meet with favor. Consequently, the teachers who had served the three-year probation period in many instances were reappointed, thus avoiding unpleasant friction.

In one instance, however, a board of education dropped a teacher who had served the probationary period and who was not inclined to submit to dismissal. She demanded a hearing. Charges were filed. It was alleged that she was incompetent, irritable, and disobedient. Testimony was offered. An attorney employed by the teacher examined the witnesses and made an eloquent plea in behalf of his client. The hearing was postponed, and at the time this editorial is being written no decision had been reached.

The case in hand does not argue for or against the teacher-tenure idea. It does point to the fact, however, that the prestige of an accused teacher is placed in a most hazardous attitude. Her entire professional future is staked on the trial. A public hearing brings to the surface all the complaints upon which the dismissal is based. These make unpleasant reading. If the charges are sustained, the professional career of the teacher is ended.

The framers of the teacher-tenure law undoubtedly took into account the unpleasant features which go with a public hearing. While they were concerned with interests of the teacher, they also bore in mind the main objective, namely, the interests of the school. Thus, if the tenure law invites embarrassing situations, it simply raises the question whether these affect the good discipline of the school.

The late Mark Keppel, a prominent California educator, said: "Retirement salaries and tenure benefit the teacher, but these are not provided primarily to benefit the teacher. They are provided primarily to benefit the children by securing and retaining the best of teachers." That is exactly as it should be, but is there really any danger that the school authorities are inclined to dismiss "the best of teachers?"

We have no quarrel with the teacher-tenure law. Its purpose is a laudable one. But, it is still in the experimental stage and its operation should concern alike school authorities and teachers. At present, it promises benefits as well as drawbacks. It is aimed at unjust removals. Will it also facilitate desirable elimination?

THE FINANCIAL INDEPENDENCE OF BOARDS OF EDUCATION

The involved relations which have obtained in many states between local school boards and city councils whereby the latter body has exercised a control over the financial operations of the former, has also led to many unpleasant controversies and vexatious delays. The contention in defense of such relations has been that the one body serves as a check upon the other and thus protects the taxpayers' interests.

Where the school budgets are subject to the scrutiny and approval of city councils, such bodies are supposed to determine merely upon the amounts that can and must be allowed for school purposes. Some city councils have, however, maintained that they must not only determine the amount of money that shall be expended for school purposes but must also say just how school moneys are to be expended.

Thus, it has happened that aldermanic bodies have tried to tell school boards how many teachers they can employ and what salaries to pay them, what textbooks and supplies they can purchase, and when and where not to proceed to the erection of new school buildings.

When the controversies between school boards and city councils have been adjudicated by the courts it has almost invariably followed that a city council has the authority to determine the amount that shall be allotted for school purposes but that it is entirely within the province of a school board to say how the school fund shall be expended. The courts of New York and Massachusetts have within recent years spoken clearly on the subject.

There must, in the nature of things, be some recognized authority that decides how the tax dollar shall be apportioned. Local government implies many needs aside from those exacted for education, and the school interests must, in a general way, adjust their demands to the tax ability of the community and of the state.

In Indiana the boards of education are hampered by a state tax board. This body wields authority over finance matters, resulting in continuous controversy and quarrel. The Indianapolis News recently reported: "Delay of the state tax board in approving a $215,000 bond issue was condemned by the Indianapolis school board at a special meeting when the bond issue was sold at a discount price of $207,103. The bond issue was referred to the tax board June 14. The board did not act in the matter within the fifteen-day period given by law. A further delay was necessary in obtaining formal approval of the issue. These delays were attributed by members of the school board as the reason for the sale of bonds at a discount because they said the money market had fallen in the meantime.

Money for building the auditorium first was requested by the school board in May, 1927, when the project was included in a $400,000

bond issue for that purpose and for the construction of wings for the administration building at the high school. The tax board then authorized a $250,000 issue for the wings and had an agreement with the school board that approval of the remainder would be given later when the school board was ready to begin work on the auditorium. When the school board sought approval from the tax board on the auditorium bond issue in April, the tax board decided it did not have power to split a bond issue and informed the school board that it would have to readvertise for bids on the project. The new bids on the general construction, plumbing, heating and ventilating and wiring of the structure were referred to the tax board June 14. A protest was made against some feature of the bids.

This merely illustrates some of the delays and misunderstandings which may arise where "too many cooks spoil the broth."

Experience has taught that where boards of education are given the widest range of freedom in matters of finance the best results are obtained. Where the tax levy for school purposes is left with such bodies, greater caution and wisdom is exercised, and complaints of extravagance are seldom heard. Where finance boards, city councils, and tax boards wield an authority over boards of education in financial matters, no particular economies are achieved. Place full responsibility upon a school board and an economical and efficient administration is usually the result.

THE OFFENDING TEACHER AND THE IRATE PARENT

Among the distressing situations in the field of school administration is the case of the teacher who has offended the parent in a child-discipline squabble, and who is publicly berated for her conduct. When a case of this kind reaches the stage of an open friction between citizens and school authorities, it becomes both vexatious and embarrassing. Usually the parent accuser is inclined to be unreasonable, the public is divided, the school board is in a quandary, and finally the teacher is in a serious predicament.

The general policy of the school authorities in ruptures of this kind is to give the teacher the benefit of the doubt. The discipline of the school must be upheld. The parent cannot be allowed to dictate the policy of the schools.

But the school authorities may go too far in their defense of an accused teacher and thus aggravate rather than lessen the friction. In a New England city recently a teacher punished a number of children for what they did on Saturday—a day of no school. A leading banker publicly claimed that a wrong had been committed by the teacher and demanded an explanation. The board of education refused to admit the error. Its slogan was, "Our teacher, right or wrong," and refused to listen to the complaint. Thus the case was projected into public controversy. The newspapers got busy. The rest may be imagined.

The conclusion reached by an impartial citizenship of the community was to the effect that if an employee of a bank commits an error in dealing with its patrons, the bank authorities must admit the error and make amends. A local newspaper discusses the subject in this fashion:

"How long would the ordinary merchant remain in business if he conducted his affairs in the manner of not allowing a customer to register a legitimate objection? Courtesy in business is a valuable asset and enough pressure must be brought to prove that courtesy is expected from the servants of the people—and that means every man or woman whose salary comes from taxes. There is altogether too much handshaking on the part of those seeking office in the days before election and too many fanning their fingers to their noses the day after election."

The editor continues: "If a newspaper has to retract an error, if a banker has to rectify a mistake, and a merchant has to satisfy an aggrieved customer, then why all these walls of protection against the error of an officeholder, policeman, fireman, or school teacher? Protecting an officeholder when he is in the wrong will never help the one protected nor those offering the protection. The rights of the people are paramount and will win in the long run. Any attempt to curtail these rights will only magnify an error until it becomes a protected crime. Facing the music and telling the truth ends many a trivial incident which, if offered political protection, takes on the aspect of hiding a culprit."

This dictum is predicated upon the assumption that an error, sufficiently grievous to demand an explanation and apology, has really been committed. Those engaged in the administration of the schools are so frequently confronted with complaints of a trivial and unreasonable character, that they are not only obliged to hold to inflexible rules on the maintenance of discipline, and in the course of time, are inclined to become indifferent to such complaints and criticism. It follows, nevertheless, that there must be a discriminating attitude on complainants and complaints. An error, clear and unmistakable, cannot be slighted. A school employee positively in the wrong cannot and must not be defended. The disciplinary character of the school will not suffer if explanation is frankly and promptly made by those authorized to make it. What seems a tempest in a teapot may develop into a hurricane. A timely and tactful explanation privately made may avoid vexatious controversy publicly engaged in.

THE BOSTON METHOD OF SELECTING TEACHERS

The tendency to exclude outside teachers from the local school system is not new. The home product seeks and frequently deserves preference over the applicant from the outside. Even Boston, the intellectual center of America, has for years maintained so-called "inside" and "outside" lists of eligible candidates for appointment as teachers in the Boston schools.

The enormous teacher surplus throughout the country has in instances intensified the tendency to favor the local applicant against the outsider. Some of the larger cities have openly discussed the expediency of barring the outside applicant.

Experience has demonstrated that where the subject of exclusion is considered in all its aspects, definite rules are rescinded. The school committee of Boston has now abolished the so-called "inside" and "outside" lists of applicants. The Boston Transcript, in commenting on the action, says:

"This change removes the worst of the restrictions which hitherto gave an obviously extreme preference to Teachers' College girls, as against graduates of all other colleges for women throughout the nation. The members of the committee who supported the change deserve the praise and thanks of all Bostonians for their determined stand on behalf of a reform which cannot help but serve the best interest, not only of the teaching staff but also of all the pupils in Boston's public schools."

The opposition to outside teachers is based upon several causes. In Boston there was the desire to favor the graduates of a local teachers' college, in St. Louis it was believed that the nonresident teacher lacked in community interest, and in other centers it has merely become an accepted policy to favor local teacher talent. In the state of Washington it was the intention to favor those who had graduated from the schools of the state.

The school authorities in the main have long solved the problem of teacher selection. Character and fitness, rather than the question of residence, have become the determining factors. Only where all things are equal is the local applicant favored as against the nonresident.

PROFESSIONALIZING PUBLIC SERVICE AND SCHOOL ADMINISTRATION

Aside from the effort to prepare students for the several learned professions and for executive leadership in the field of commerce and industry, some of the higher institutions of learning are extending their services into broader fields. The University of California, for instance, is making an effort to "professionalize public service to the end of better civic government, more effective management of public funds, better traffic conditions, more effective planning and zoning, better power service and engineering, and more healthful, sanitary, and social conditions."

This is a commendable program. It proposes "an intensive college course dealing exclusively with the duties, powers, and responsibilities of public officials. Recognized experts will conduct the same." Those identified with the public service of the western country are to enjoy the benefits of this service.

In this connection the thought occurs to us that something might be done for the cause of school administration. The institutions preparing for the profession of teaching in many instances now provide thorough courses in school administration. Those who aspire to executive positions are trained in the intricacies of school management and all that pertains to that field of work.

But there are those now engaged in the school administrative service, who have not had the opportunity of special training who might be benefited by a summer course on subjects dealing with their respective tasks.

The national body of public-school officials is doing much toward higher standards and to enhance efficiency in dealing with school budgets and accounting, sites and construction operations, the economical purchase and distribution of supplies, and the many considerations which enter into the government of a well-managed school system. The larger communities have in the main been the beneficiaries of the service this useful organization has rendered.

The question resolves itself to the expediency of providing a service which shall include the school officials of medium-size and smaller communities and those assigned to tasks of special importance. The summer months, however, are busy months for the administrator who is engaged in providing for the fall opening of the schools. Summer courses, therefore, may not prove practical, but if that be so, the fact should be definitely established.

The institution of learning that is engaged in promoting the professionalizing of those engaged in the public service may also provide a course of studies that will mean a distinctive contribution to the school administrative activities of the nation. There is unquestionably something in the thought that special school officials, such as purchasing agents, accountants and building superintendents may secure great benefits out of well-digested discussions dealing with their work and that a number of the minor officials might profit by the training thus afforded.

At any rate, institutions of higher learning, seeking to strengthen the public service, might well consider the expediency of including courses designed to be in aid of school administration. No department of the public service commands a larger share of the tax revenue and none is engaged in a more important task than that of administering the schools.

Index of School-Bond Prices[1]

Harold F. Clark, Teachers College, Columbia University, New York, N. Y.

The net interest rate on all school bonds sold in August was 4.66 per cent. The rate for all bonds sold in July was 4.45 per cent. As the figures show, the average rate of interest on bonds sold in August was .21 of 1 per cent higher than the interest rate on bonds sold in July. August is the fourth consecutive month that has shown an increase, and the index now stands at a higher point than it has stood at any time during the past twelve months. In April, 1928, the index reached a low point for recent years at 4.13. Since then, it has risen .53 to the August figure of 4.66. This means that in April the average school bond sold carried an interest rate of 4.13 per cent, while the average bond sold in August carried an interest rate of 4.66 per cent.

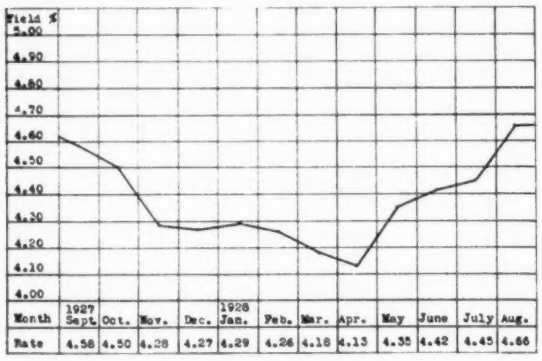


TABLE I. Average Yield of All School Bonds Sold During the Month

With interest rates as high as they are, many school-business managers and superintendents are doubtless asking whether they should sell bonds now, or wait for a more favorable market. As is always true of short-term swings of the bond market, any statement as to what is going to happen can only be an estimate. All we can do is to base the estimate upon the best possible known facts. This time of the year usually sees some strain on credit, due to the need of money to move the farm crops. The Federal Reserve Board generally takes steps to ease this strain and to make money readily available for this purpose. The policy of the Federal Reserve Board this year is no exception. During the summer, the Federal reserve banks seemed to be trying to restrict credit in order to discourage stock-market speculation. Toward the last of August, the policy of the banks seemed to change. This change was doubtless partly caused by a desire to make money easily available for buying and moving the farm crops. This policy of the banks, taken by itself, might have made for slightly lower interest rates on bonds.

However, there is an additional factor to be considered. Another stock-market boom started in August and this may use up the additional credit made available by the banks and lead to high interest on new bond issues.

The attitude of the Federal Treasury in issuing bonds is a good thing for the schoolman to watch as an indicator of the trend of bond prices. The newspapers recently announced that the Treasury raised its interest rate to 4½ per cent in making an offering of $525,000,000 of certificates of indebtedness, maturing in nine months, as its September financing program. This is the first time that an interest rate as high as 4½ per cent has been paid on a government offering for some years. The fact that short-term certificates of indebtedness were issued instead of bonds shows that the Treasury thinks it will be possible to issue the bonds later, at a lower rate of interest. This indicates lower interest rates on bonds in the next few months.

Unless stock-market operations take too much of the available credit, interest rates on school bonds should tend to work slightly lower during the next two or three months and after that there may be a decided lowering of interest rates.

As to advice for the immediate future, possibly nothing better could be done than to quote from a letter written to the city of Denver, Colorado, by one of the large bond houses regarding the bond prospect.

The facts were as follows: The city of Denver had tried to sell a $13,924,000 issue of 4¼-per-cent bonds. There were no bids.

TABLE II
Amounts and Yields of Bond Issues[2]

	October, 1928
1. School bonds sold during the month	$ 8,149,525
2. All municipal securities sold durin the year (to date)	980,200,000
3. All school bonds outstanding (estimated)	3,244,000,000
4. Average yield of all school bonds outstanding (estimated)	4.64%
5. Yield of school bonds of ten large cities	4.40%
6. Yield of United States long-term bonds (Quotation the middle of September)	3.50%

[2]The monthly total of school bonds does not include all the bonds issued in the month, due to the difficulty of obtaining the yields on some of the issues.

TABLE III

Year	Bond Sales[3] School	Municipal	All Public and Private	Average Rate at Which Bonds Were Sold Year	Municipal
1927	$274,000,000[4]	$1,450,000,000[4]	$7,735,000,000[4]	1927	4.47[4]
1926	260,000,000	1,365,000,000	6,311,000,000	1926	4.61
1925	323,000,000	1,399,000,000	6,223,000,000	1925	4.58
1924	288,000,000	1,398,000,000	5,593,000,000	1924	4.26
1923	208,000,000	1,063,000,000	4,303,000,000	1923	4.76
1922	237,000,000	1,101,000,000	4,313,000,000	1922	4.81
1921	215,000,000	1,208,000,000	3,576,000,000	1921	5.18
1920	130,000,000	683,000,000	3,634,000,000	1920	5.12
1919	103,000,000	691,000 000	3,588,000,000	1919	5.04
1918	41,000,000	296,000,000	14,368,000,000	1918	4.90
1917	60,000,000	451,000,000	9,984,000,000	1917	4.58
1916	70,000,000	457,000 000	5,032,000,000	1916	4.18
1915	81,000,000	498,000,000	5,275,000,000	1915	4.58
1914	42,000,000	320,000,000	2,400,000,000	1914	4.38

[3]By special permission based upon sales reported by the Commercial and Financial Chronicle.
[4]Not final.

TABLE IV
Average Yield of Long-Term Federal-Government Bonds[5]

Past Twelve Months Month 1928	Rate %	Past Five Years Year	Rate %
September	3.48[6]	1927	3.464
August	3.51[6]	1926	3.544
July	3.50	1925	3.797
June	3.40	1924	4.010
May	3.35	1923	4.298
April	3.32	1922	4.301
March	3.30		
February	3.36		
January	3.35		
1927			
December	3.34		
November	3.39		
October	3.43		

[5]Taken from the Federal Reserve Bulletin.
[6]Calculated from the New York Stock Exchange quotations and not the final Federal Reserve Board average.

WHAT INDEX NUMBERS WILL NOT DO

Index numbers will not solve all the financial problems of school administration. Many things in school procedure that held promise have been damaged by overpraise. Let us hope that this does not happen in regard to index numbers. The fact that index numbers will not solve all our problems does not mean that they are valueless.

One school superintendent said the index number of bond prices would not help him because it was only an average. Of course, it is only an average, but the alternative to presenting some average of prices is to give the actual prices of hundreds of bond issues. That would be so complicated, it would be valueless to the ordinary man. What would happen if the business man, instead of asking for an index of wholesale prices, asked for the price on each sale on each commodity in the county. This would run into thousands and tens of thousands of quotations. Again, it would be too complex to be of value. One figure, an index of wholesale prices, shows the situation much better. The superintendent referred to above is looking for something that will solve all his problems, and an index number is not that something. Properly used, however, an index number of bond prices will go far to solve the problem of when to issue school bonds.

As an illustration of the usefulness of an index of bond prices: In the month of August a large number of communities tried to sell bonds with interest rates of 4 or 4¼ per cent. A large proportion of these attempted sales had no bids. As the whole process will have to be gone through again, such a mistake is expensive. If the communities were determined to sell bonds at this time, an interest rate should have been set that at least would have brought a bid. If an index of school-bond prices did nothing else, it would indicate the rate that would be necessary to get a bid.

An important fact is brought out by a recent sale in Cook county. As reported on August 24, Cook county offered for sale $2,700,000 of 4-percent bonds. The highest bid was 99.14. If it was desired to receive par or more the interest rate was too low. A good index of bond prices should show that the important thing is the net rate, and not whether the bonds sold above or below par.

Index numbers will not answer all the financial problems of school administration, but if properly used they will answer many of the most perplexing ones.

TABLE V
Security Prices and Yields[7]

Date 1928	Average Price of 228 Stocks	Average Price of 60 Bonds	Average Yield on 60 High-Grade Bonds
Sept.	220.0[8]	98.1[8]	4.53[8]
Aug.	217.5[8]	98.0[8]	4.54[8]
July	210.1	98.2	4.52
June	210.2	98.5	4.50
May	221.8	99.7	4.42
April	215.2	100.3	4.38
March	203.0	100.5	4.37
Feb.	191.9	100.3	4.38
Jan.	195.6	100.3	4.38
1927			
Dec.	196.5	100.0	4.40
Nov.	189.0	99.7	4.42
Oct.	186.2	99.6	4.43

[7]As reported by the Standard Statistics Company, Inc. Used by special permission.
[8]Not final.

"We are writing this letter and stating that in our opinion it might be well to postpone the sale. We do not attempt to state that we can make any accurate prediction as to what conditions will be, say, six months, or twelve months

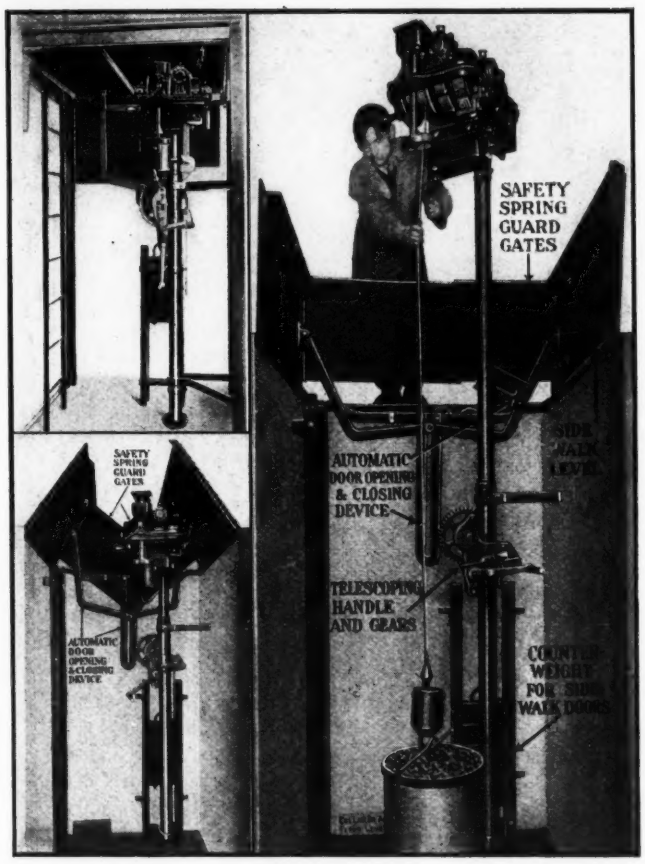
TABLE VI
Revised Index Number of Wholesale Prices[9]

Past Twelve Months Month 1928	All Commodities	Building Materials	Past Five Years Year	All Commodities	Building Materials
Sept.	98.7[10]	94.7[10]	1927	95.4	93.3
Aug.	98.5[10]	94.6[10]	1926	100.0	100.0
July	98.3	94.4	1925	103.5	101.7
June	97.6	93.9	1924	98.1	102.3
May	98.6	93.5	1923	100.6	108.7
April	97.4	92.5			
Mar.	96.0	91.0			
Feb.	96.4	91.0			
Jan.	96.3	90.8			
1927					
Dec.	96.8	90.4			
Nov.	96.7	90.2			
Oct.	97.0	91.6			

[9]United States Bureau of Labor Statistics, 1926=100.
[10]Not final.

(Concluded on Page 128)

[1]Copyright by Harold F. Clark.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MICHIGAN	107 Schools	MARYLAND	33 Schools
MASSACHUSETTS .	98 Schools	WISCONSIN	24 Schools
IOWA	68 Schools	DIST. COLUMBIA .	23 Schools
ILLINOIS	62 Schools	INDIANA	22 Schools

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SCHOOL LAW

Schools and School Districts

School districts are governmental agencies of the state, having only such powers as are expressly conferred by the legislature or necessarily implied in the statutes under which they operate.—Lincke v. Moline Board of Education, 245 Ill. app., 459, Ill.

A school district is a creature of statute having no powers beyond those given by the legislature.—American Surety Company of New York v. School Dist. No. 64 of Douglas county, 219 Northwestern Reporter, 583, Nebr.

A statute providing for the annexation of common-school districts to independent school districts is held not limited by the provisions of the Texas revised statutes (Tex. revised statutes of 1925, arts. 2922a-2922l).—Terrell v. Clifton Independent School Dist., 5 Southwestern Reporter (2d), 808, Tex. Civ. App.

The legality of an enlarged district organized and acting under the color of law could be determined only in a suit brought for that purpose by the state or under its authority (Tex. revised statutes of 1925, art. 2922a).—Terrell v. Clifton Independent School Dist., 5 Southwestern Reporter (2d), 808, Tex. Civ. App.

A board of supervisors is held not to be without jurisdiction of proceeding to add territory to a school district, because the territory was described only by sections, township, and range.—James v. Board of Supervisors of Wilkinson County, 117 Southern Reporter, 111, Miss.

Sustaining a demurrer to a petition relative to the consolidation of districts is held an error, where the school board had not gone into the question of the impracticability or inaccessibility of the school site selected. (Acts of 1927, p. 549.)—Manley v. Moon, 6 Southwestern Reporter (2d), 281, Ark.

The trustees of an independent school district, after the annexation of a common-school district, could order an election to determine whether the indebtedness of an independent district should be assumed by the enlarged district (Tex. revised statutes of 1925, art. 2922h).—Terrell v. Clifton Independent School Dist., 5 Southwestern Reporter (2d), 808, Tex. Civ. App.

The consolidation of common-school and high-school districts to form a rural high school is held unauthorized, where both districts had under 400 scholastic population (Tex. revised statutes of 1925, art. 2922a, as amended by the Texas laws, 1st session of 1927, chap. 78).—County Board of School Trustees of Limestone County v. Wilson, 5 Southwestern Reporter (2d), 805, Tex. Civ. App.

The authority of school trustees to group contiguous common-school districts to establish a high school does not extend to consolidation (Tex. revised statutes of 1925, arts. 2922a, as amended by the Texas laws, 1st session of 1927, chap. 78; Tex. revised laws of 1925, arts. 2922b to 2922l, 2806, 2807, 2811, 2815).—County Board of School Trustees of Limestone County v. Wilson, 5 Southwestern Reporter (2d), 805, Tex. Civ. App.

School-District Government

School directors contracting for improvements without official action were properly surcharged in the amount of the payments which they had made.—In re Sykesville Borough, 91 Pa. Superior Court, 335 Pa.

School-District Property

Land conveyed for a school site is held to revert to the grantor under a deed on abandonment of use of the land for such purposes.—School Dist. No. 42 of Cascade County v. Pribyl, 267 Pacific Reporter, 289, Mont.

A defense that the land had reverted to a defendant grantor on the abandonment of land for school purposes is held not to be a collateral attack on deed.—School Dist. No. 42 of Cascade County v. Pribyl, 267 Pacific Reporter, 289, Mont.

Where a school building must be rented, the selection of the building is in the school board's discretion.—Kuykendall v. Tittle, 245 Ill. App., 270, Ill.

School directors renting a school building are held not liable for rent because of a mistake in judgment.—Kuykendall v. Tittle, 245 Ill. App., 270, Ill.

School directors and school boards have no power to grant the use of school buildings for public, educational, and social interests for hire or profit (Cahill's revised statutes of 1927, chap. 122, par. 123).—Lincke v. Moline Board of Education, 245 Ill. App. 459, Ill.

Statutory permission to school authorities to grant the use of schoolrooms for social and educational uses is for uses harmonious with objects of schools (Cahill's revised statutes of 1927, chap. 122, par. 123).—Lincke v. Moline Board of Education, 245 Ill. App. 459, Ill.

A charge by the board of education to the public using schoolrooms for social purposes to cover incidental expenses is within the governmental power of the board.—Lincke v. Moline Board of Education, 245 Ill. App. 459, Ill.

An oral agreement between the contractors and the board of education modifying a written contract for the construction of a school building is held permissible and binding.—Lather v. School Dist. No. 1, Fayette twp., Hillsdale county, 219 Northwestern Reporter, 700, Mich.

An architect's agreement with materialmen to withhold funds due the principal contractor to the amount of their claims is held not to be binding on the board of education.—Union Indemnity Co. v. Acme Blow Pipe & Sheet Metal Works, 117 Southern Reporter, 251, Miss.

In an action against a public contractor's surety on a bond, the evidence is held to sustain a finding that the building was not completed 90 days before the service of a statutory notice (Gen. statutes of 1923, § 9705).—Guaranteed Gravel & Sand Co. v. Aetna Casualty & Surety Co., 219 Northwestern Reporter, 546, Minn.

As regards the sureties' liability on the bond, the acceptance of a building by the school board requires an act with intent to receive a building as compliance with the contractor's duty.—Guaranteed Gravel & Sand Co. v. Aetna Casualty & Surety Co., 219 Northwestern Reporter, 546, Minn.

In an action against a public contractor's surety, excluding evidence as to why a school board did not formally accept the building is held not an error.—Guaranteed Gravel & Sand Co. v. Aetna Casualty & Surety Co., 219 Northwestern Reporter, 546, Minn.

A bond executed under contract for installing a heating and ventilating system in the high school protected the materialmen (Heminway's code of 1927, § 778; Miss. laws of 1918, chap. 217).—Union Indemnity Co. v. Acme Blow Pipe & Sheet Metal Works, 117 Southern Reporter, 251, Miss.

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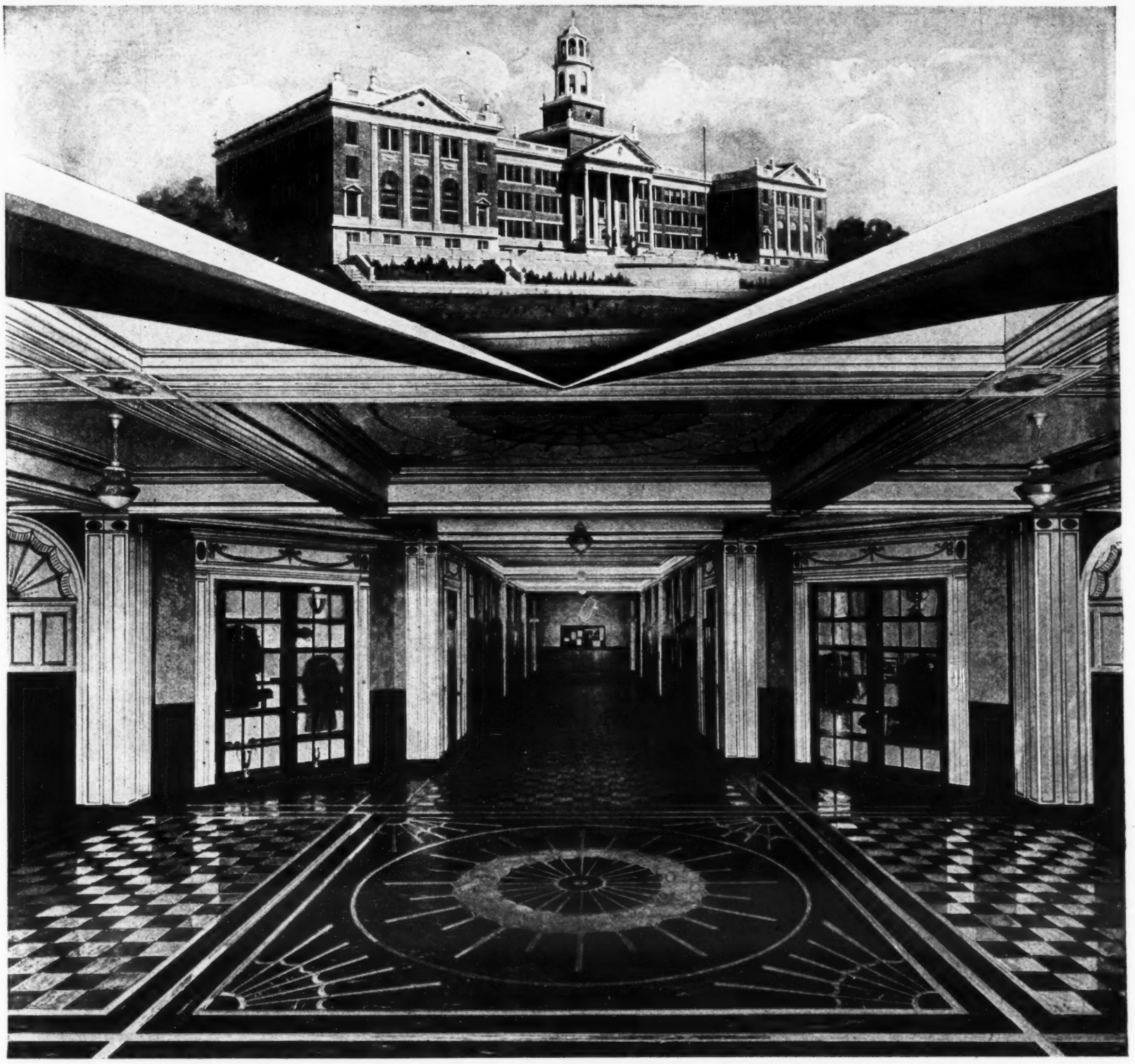

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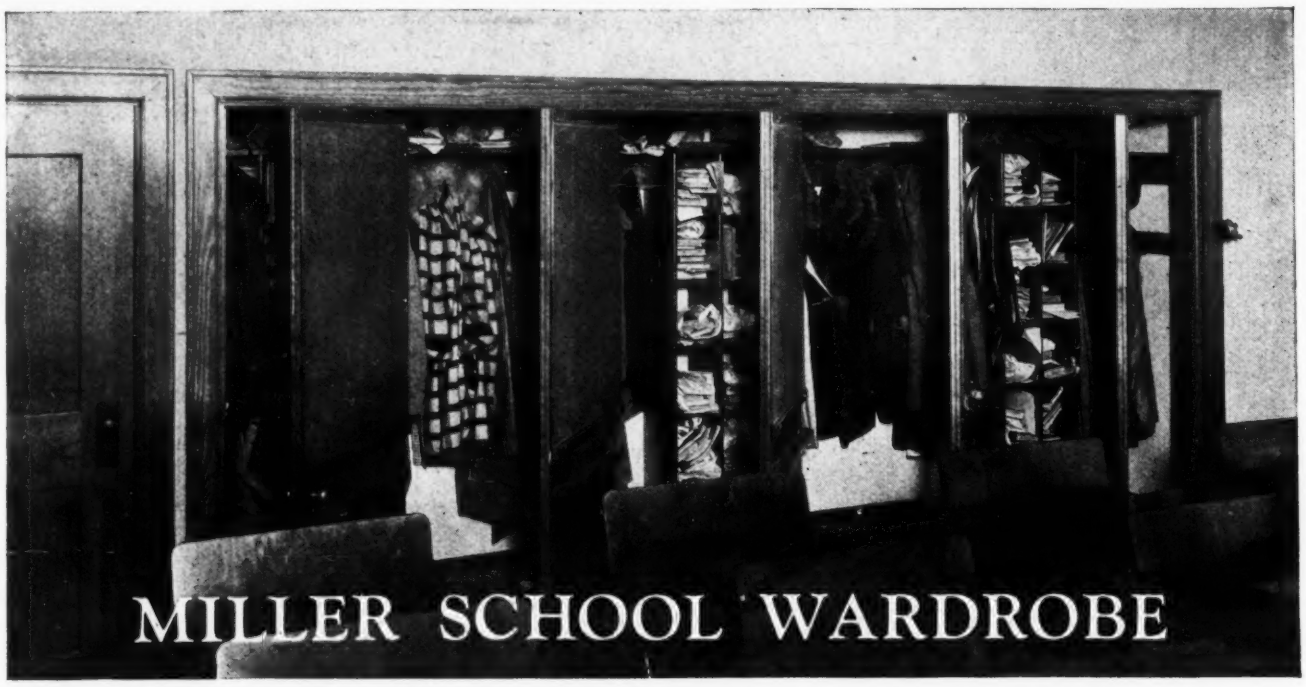

Effectively Used with the "Home Room System" in High Schools

The "Home Room System" of school management is becoming more and more popular with high school authorities every year. Under this system, one teacher supervises a certain group of students for four years. They report to her room—their "home room"—every morning; and store their wraps, books, lunches. Then they go to their classes, returning to the home room at noon. After lunch, they go to their various classrooms again; and finally, return to the home room for wraps and books at dismissal time.

Wraps, books and lunches are stored within a Miller Wardrobe, located in the home room—as indicated in the photo above. Note the pigeon holes for books, lunches, etc. The wardrobe doors are closed and locked by the teacher. *A master lock on one door locks all the doors simultaneously.* The home room teacher uses the blackboards on the wardrobes while conducting her classes, but only her own pupils can use the wardrobes.

The economies of this system are obvious. It speeds up the movement of pupils from classroom to classroom—eliminates confusion in hallways—makes possible important economies in the construction of the school building itself. The teacher holds the key to the locked wardrobe, thus preventing pilfering. The influence of the home room system on pupils is far-reaching. Their home room teacher gets to know them intimately—knows their problems—knows their parents. She gives them counsel, aid, inspiration, advice.

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(Concluded from Page 70)

A surety required to pay materialmen cannot recover over against the board of education under a contract authorizing the architect in his discretion to retain a percentage of the amount of the contract.—Union Indemnity Co. v. Acme Blow Pipe & Sheet Metal Works, 117 Southern Reporter, 251, Miss.

The covenants and conditions of the bond of a contractor erecting a school building are not to be read into or construed as part of the contract or to alter it (Nebr. complete statutes of 1922, § 3224).—American Surety Co. of New York v. School Dist. No. 64 of Douglas county, 219 Northwestern Reporter, 583, Nebr.

Members of a school board in exacting a bond for the benefit of laborers, mechanics, and materialmen, exercise power for beneficiaries to be protected thereby and not for the school district (Nebr. complete statutes of 1922, § 3224).—American Surety Co. of New York v. School Dist. No. 64 of Douglas county, 219 Northwestern Reporter, 583, Nebr.

A statutory bond required of a contractor in erecting a building for a school district protecting laborers, mechanics, and materialmen, affords no basis for cause of action against the school district in its corporate capacity (Nebr. complete statutes of 1922, § 3224).—American Surety Co. of New York v. School Dist. No. 64 of Douglas county, 219 Northwestern Reporter, 583, Nebr.

Failure to conform to statutory requirements renders the contract of school directors void as to the school district.—In re Sykesville Borough, 91 Pa. Superior Court, 335, Pa.

Contractors who are constructing a school building under a guaranted-cost-and-fixed-fee plan are held independent contractors and not agents of the school district.—Lather v. School Dist. No. 1, Fayette twp., Hillsdale county, 219 Northwestern Reporter, 700, Mich.

The right of a board of education to cancel a contract for the construction of a school building is held optional and not an exclusive remedy.—Lather v. School Dist. No. 1, Fayette twp., Hillsdale county, 219 Northwestern Reporter, 700, Mich.

A board of education's consent to the omission of certain extras in the construction of a school building is held not to prevent claiming a set-off of such extras to the contractor's claim for extras.—Lather v. School Dist. No. 1, Fayette twp., Hillsdale county, 219 Northwestern Reporter, 700, Mich.

A school district is not liable for neglect of duty on the occasion of ultra vires granting by the board of education of the use of schoolrooms for profit.—Lincke v. Moline Board of Education, 245 Ill. App. 459, Ill.

School-District Taxation

A school district advertising the unconditional sale of school bonds is held to have properly ignored the conditional bids and accepted a lower unconditional bid.—Mercer v. North Little Rock Special School Dist., 6 Southwestern Reporter (2d), 16, Ark.

That a school district advertising an unconditional sale of school bonds accepted an unconditional bid lower than the conditional bids is held not to show fraud or collusion.—Mercer v. North Little Rock Special School Dist., 6 Southwestern Reporter (2d), 16, Ark.

A rural high-school district annual tax levy, based on an estimate adopted by the electors at a meeting on the second Monday instead of the first Monday in June, is held void (Nebr. complete statutes of 1922, § 6377).—Howard v. Jensen, 219 Northwestern Reporter, 811, Nebr.

The trustees must present a budget estimate for adoption to the electors at an annual meeting on the first Monday of June to make the tax levy for a rural high school tax valid (Nebr. complete statutes of 1922, § 6382).—Howard v. Jensen, 219 Northwestern Reporter, 811, Nebr.

A school district is held not entitled to recover from a tax collector the amount of a school tax after depositing the check covering such amount, notwithstanding the return of the check after the bank closed.—School Dist. of Robinson Twp. v. Cook, 91 Superior Court, 207, Pa.

A suit to enjoin the collection of a tax for school bonds is held not barred by a statute applying to suits to test the correctness of assessments (La. Constitution of 1913, art. 281; La. act No. 97 of 1924).—Tremont Lumber Co. v. Bond, 116 Southern Reporter 723; Tremont & Gulf Railway Co. v. Bond, 116 Southern Reporter, 724, La.

A taxpayer may maintain an action for the recovery of school-district funds which the school directors have used improperly.—Kuykendall v. Tittle, 245 Ill. App. 270, Ill.

School-District Claims

Equities and implied liabilities are excluded in determining whether there is a cause for action against a school district, in view of the statute (Pa. statutes of 1920, 4746-4752, 4842, 17482, 17483).—In re Sykesville Borough, 91 Pa. Superior Court, 335, Pa.

In an action on a contract against a school district, the pleading must affirmatively show that the contract is one which the district may make.—American Surety Co. of New York v. School Dist. No. 64 of Douglas County, 219 Northwestern Reporter, 583, Nebr.

A seller of textbooks to a school committee after the appropriation had been expended could not recover without proving an original estimate included the amount sufficient to pay therefor (Mass. statutes of 1914, chap. 687, § 49; G. L. chap. 44).—Parkhurst v. City of Revere, 161 Northeastern Reporter, 599, Mass.

Teachers

A certificate of qualification for first-grade schools must be indorsed for teaching in the high-school grades (Cahill's revised statutes of 1927, chap. 122, par. 291).—Cramer v. Board of Education, 245 Ill. App. 172, Ill.

A county superintendent's promise to indorse a school teacher's certificate for teaching in the high-school grades will not take place of an indorsement (Cahill's revised statutes of 1927, chap. 122, par. 291).—Cramer v. Board of Education, 245 Ill. App. 172, Ill.

A yea-and-nay vote of the board of school directors must be entered on the records to make a contract employing a school teacher valid.—Scanlan v. Board of Directors of Dist. No. 39, 245 Ill. App. 357, Ill.

Pupils and Conduct of Schools

A statute is held to authorize the collecting of tuition for pupils living in a county not under the Barnes act attending a high school in the county operating under such act (Kans. revised statutes of 1923, 72-3001 et seq., 72-3014).—School Dist. No. 49, Logan County v. Community High School of Thomas County, 267 Pacific Reporter, 23, 126 Kans. 51.

—The Wisconsin Department of Public Instruction has ruled that a school taught on a legal holiday may not be counted for two days of schoolwork. While the board may authorize the teacher to close school for one or two days during a local fair, it must be kept in mind that such days are not legal holidays, and, consequently, the teacher may not be compensated by the board for the days the school was closed.

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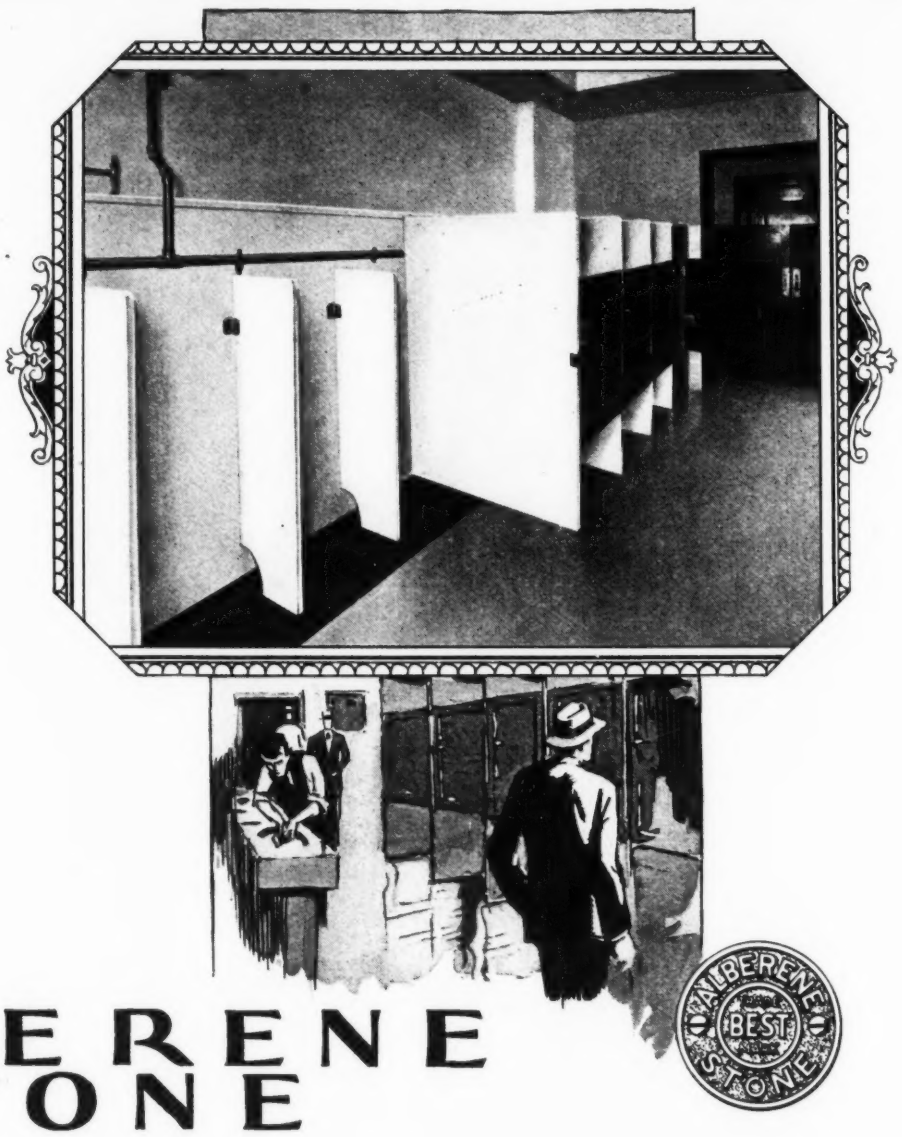


ALBERENE STONE

ST. LOUIS SCHOOL-BOARD RULES

The school board of St. Louis, Mo., adopted new rules governing the appointments and duties of superintendents and supervision. The rules read as follows:

1. It shall be the duty of assistant superintendents-emeritus, supervisors-emeritus and principals-emeritus, under the direction of the superintendent, to act as substitutes respectively for regular assistant superintendents, supervisors and principals, and to perform such other duties as the superintendent of instruction may require.

2. It shall be the duty of tutor-assistants, under the direction of the superintendent, to act as substitutes for regular teachers, to give individual or small groups instruction, to assist the principal in making reports and the like, and to perform such other duties as the superintendent of instruction may require.

3. Assistant superintendents-emeritus, supervisors-emeritus, principals-emeritus and tutor-assistants shall be appointed by the board upon recommendation of the superintendent. No person shall be appointed to any of said positions who shall not have attained the age of 65 years.

4. Persons holding the said positions shall be subject to suspension or removal as provided by law.

5. The tenure of assistant superintendents-emeritus shall be as provided by law for assistant superintendents. The tenure of supervisors-emeritus, principals-emeritus and tutor-assistants shall be as provided by law for teachers.

6. Whenever any assistant superintendent, supervisor, principal or teacher shall attain the age of 70 years, he shall be transferred upon his own application, if an assistant superintendent to the rank of assistant superintendent-emeritus, if a principal to the rank of principal-emeritus, if a teacher to the rank of tutor-assistant, and if he shall not so apply he shall be subjected to an annual examination, physical and otherwise, to be conducted under the direction of the superintendent of instruction, to determine his fitness to continue his duties in the position he then occupies. The results of such examination shall be reported to the board.

—The school board of Jackson, Mich., has fixed the nonresident tuition fees for elementary schools at $80, intermediate and vocational schools at $100, and high school at $120, and junior college at $140 a year.

—The school board of Marengo, Ill., adopted the following rules governing the sale of secondhand textbooks and supplies.

1. All books and supplies shall be sold for cash only.

2. Anyone who wishes may place on sale any books which are to be used the following semester.

3. The person placing the books on sale shall place his or her name and the price asked, in the back of the book in ink.

4. When a book is sold, the school will deduct 5 cents from the selling price and turn the balance to the person placing the book on sale.

5. At the end of the period for operating the exchange, the pupils who have placed books on sale may call and get the money for the books sold and any unsold books which they have placed there.

6. Unsold books not called for by the beginning of the following semester automatically become the property of the school.

RULES AND REGULATIONS

—The Indiana department of education has approved a report of the committee on books and supplies that the board confine its approval to maps, encyclopedias, and dictionaries, with a view to the elimination of inaccurate works of reference. The responsibility of purchasing other books, whether or not on the list approved by the board, is to be left to the appropriate school officers.

—The school board of Bethlehem, Pa., has adopted new rules governing tuition pupils in the schools. The rules are intended to prevent a financial loss and also to facilitate the tuition arrangements between the school district and adjoining districts which send tuition pupils to the schools. The rules are as follows:

The tuition business of the district shall be conducted on a strictly paid-in-advance basis as far as individual responsibility is concerned.

No pupil shall be admitted from another district unless possessed of a certificate from his district which certifies that the home district will be responsible for the tuition of the pupil for the term or the part of the term during which he continues to attend school.

This certificate shall be presented to the principal of the school that the applicant proposes to attend. If the principal of the school certifies to the fact that the pupil can be accommodated and has the required certification for admission, he is given the proper transfer or grading card. Each such pupil shall be accompanied by his parent or guardian, who shall make a formal application for admission, assuming full responsibility for the pupil's tuition.

No such tuition pupil shall be admitted to the public schools who fails to the pay the first month's tuition in advance. Monthly tuition shall be paid in advance to the secretary of the board throughout the term, and any pupil whose tuition is not paid on or before the second school day of each calendar month shall be requested to turn in his books and be dismissed from school until the tuition is paid.

A full month's tuition charge shall be made for any portion of a month beyond two days during which the pupil attends school.

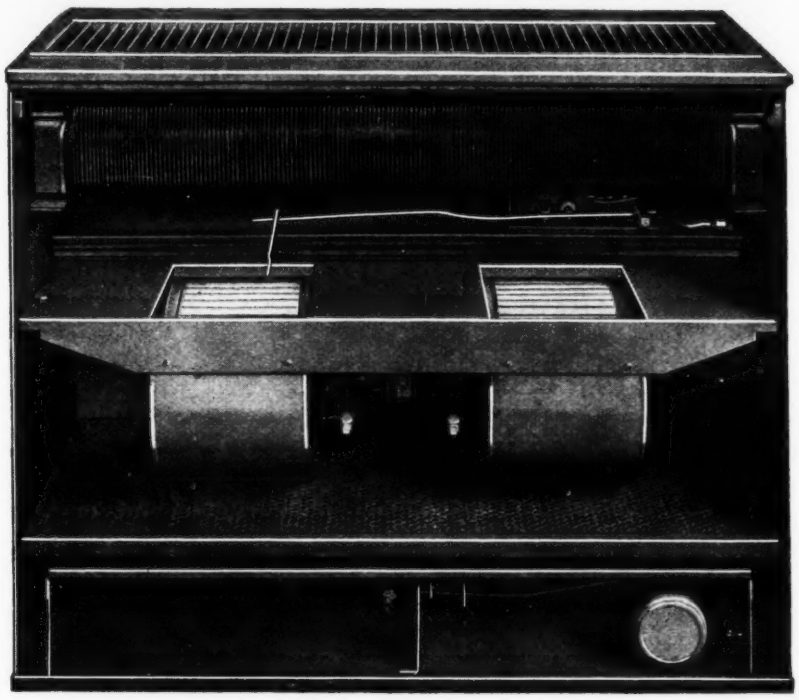
Kindergarten Entrants

—Sioux City, Iowa. The school board has recently called attention to a rule adopted two years ago, which was found helpful in placing new entrants in the schools. With the opening of the new school year, the rule has again been brought to the attention of principals and kindergarten and first-grade teachers.

Under the rule, pupils who are 5½ years old, who would naturally be entered in the senior kindergarten group, are placed in the junior kindergarten until after examination by the head nurse and psychologist. After the examination, they may be allowed to enter the senior kindergarten class.

As some children do not enter school until after the age of 6, school economy would naturally place them in the first grade. Since these children have delayed entering because of physical, mental or other reasons, it has seemed advisable to place them in the senior kindergarten until after the examination. Where the examination indicates that they are of normal physical and mental maturity, they may be placed in the junior first grade.

In all cases, it is the rule that examinations for advanced standing shall be made following the examination of underage kindergartners. Children eligible for the examination may be brought to the office, or if there is a sufficient number to occupy the time of the nurse and psychologist, the latter may be assigned for service in a designated building instead of bringing the children to the office. In any case, it is inadvisable to postpone the entrance of new pupils who have not passed an examination. Such children should be placed in the half grade, from which they may be promoted, if the examination justifies such a procedure.



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3. Units equipped with these motors are truly SILENT.
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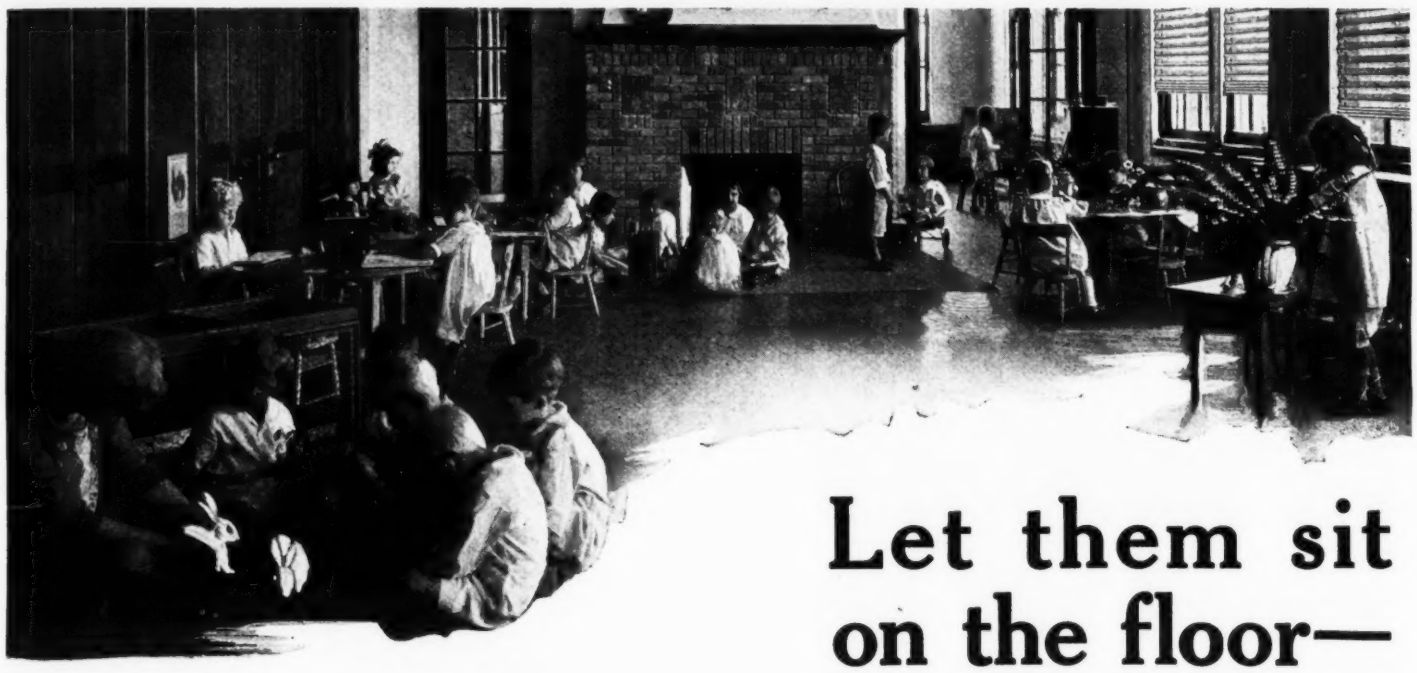

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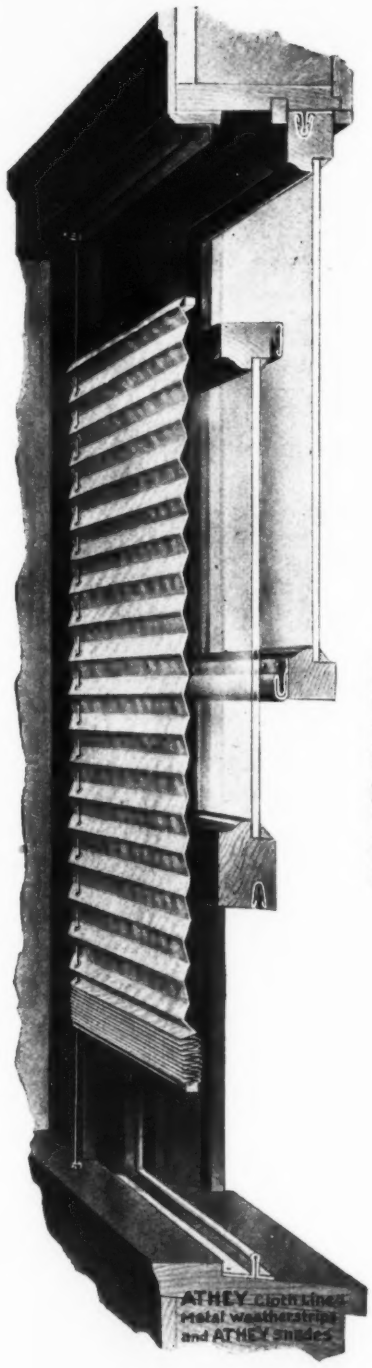

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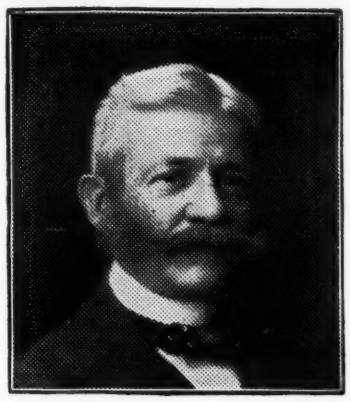

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SCHOOL FINANCE AND TAXATION

—The Boston Finance Commission, which recently completed a study of the cost of school lands for the past ten years, to determine the effect of this cost on the cost of public education in Boston, has reported that in 84 takings of land, about 50 per cent more than the assessed value has been paid, and that this difference amounts to approximately $1,000,000.

The commission has recommended that the schoolhouse department return to a policy of private negotiation in land purchasing, in order to establish a limit for future prices. It further points out that in paying $3,000,000 in taxpayers' money for land assessed at $2,000,000, the property purchased from institutions or trustees was obtained at almost the assessed value, but when purchased from individuals, the difference was more nearly 100 per cent, thus giving a new significance to the 50-per-cent figure for the total.

—The primary-school fund of Michigan this year will net the counties about $1,600,000 more than they anticipated. Due to the fact that a court decision held the 5-per-cent apportionment of the school fund illegal, the 5 per cent was not distributed and has been added to this year's apportionment of funds. The primary fund will be close to $20,000,000 this year, although the actual tax yielded only $18,230,000.

—The school board of Emaus, Pa., is advertising the floating of bonds totaling $65,000.

—Franklin, Ind. The tax levy for the past four years has decreased from $1.22 in 1925 to $1.06 in 1929. The estimated amount for school purposes in 1929 is $79,383, which is a decrease of approximately $2,000 below that of 1928.

—The school district of Ritchie, W. Va., has adopted a tax levy of $1.48, which is a reduction of two cents from that of last year.

—Omaha, Nebr. The school board has adopted a 13-mill levy for the school year 1928-29. The board, by a vote of 6 to 3, voted down a proposal to reduce the levy to 12¾ mills. The board also voted down a proposal to reduce the budget by $85,000.

—Tiffin, Ohio. The school budget has been reduced $60,000 by the board of education in spite of an increase of $10,000 in the expenses for the next year. The reduced budget has been made possible as a result of a balance of $60,000 at the end of the present school year. The total budget for the new school year will reach $123,747.

—Topeka, Kans. In refusing to increase the cost of operating the schools this year, the board of education has adopted a total tax levy of 14.25 mills, the same as last year, on a total budget of $1,337,627, and a total estimated school-property valuation of $88,328,205.

The levy shows a decrease of .02 of a mill in the general fund, a decrease of .03 of a mill in the building fund, an increase of .04 of a mill in the playground fund, a decrease of .15 mills in the sinking fund, and an increase of .16 of a mill in the interest fund. It is interesting to note that Topeka, in spite of a recent bond issue, has the second lowest of any of the first-class cities of the state.

—Effingham, Kans. A levy of 4 mills, which will produce more than $100,000 in 1929, has been adopted by the board of trustees of the school district. The new levy is an increase of 2 mills over 1927 and will be used for the rebuilding of three schools, to cost about $100,000.

—Nebraska City, Nebr. The school board has adopted a levy of 15.2 mills, which is an increase of 1.7 mills over last year.

—Tipton, Ind. The school board has adopted a tax rate of $1.45 for 1928-29, which is an increase of five cents over last year. The increase is attributed to a depreciation in property valuation, together with the fact that salaries have increased approximately $2,000.

—Batavia, N. Y. The school board has adopted a budget of $274,125, which is a decrease of $609 from last year's budget of $274,735.

—Fairport, N. Y. The school board has adopted a budget of $62,500. The largest item in the budget is $27,000 for fixed charges.

—Cleveland, Ohio. A school budget of $1,405,000 has been adopted for 1928-29 by the board of education. Of this amount, $1,105,425 will be devoted to the contigent fund, and $299,575 to the sinking fund. The budget represents an increase of $36,036 over that of 1927-28.

—Babylon, N. Y. The school board has adopted a budget amounting to $49,265, which is an increase of $1,000 over last year.

—Hampton, N. Y. The school board has adopted a budget calling for a total of $128,425 for the school year 1928-29. Of this amount, $98,425 will be raised by taxation.

—Attica, N. Y. A school budget of $65,245 has been adopted, which represents a decrease of $6,000 from last year.

—Princeton, Ill. The school board has adopted a budget of $41,475 for the school year 1928-29. The largest item in the budget is $26,750 for instruction purposes.

—Atchison, Kans. The school board has adopted a tax levy of 12.179 mills per dollar valuation, which is 1.229 mills higher than the 10.95 levy of the past two years. The new levy means that there will be an approximate increase of 12⅓ cents on each one hundred dollars of taxable valuation.

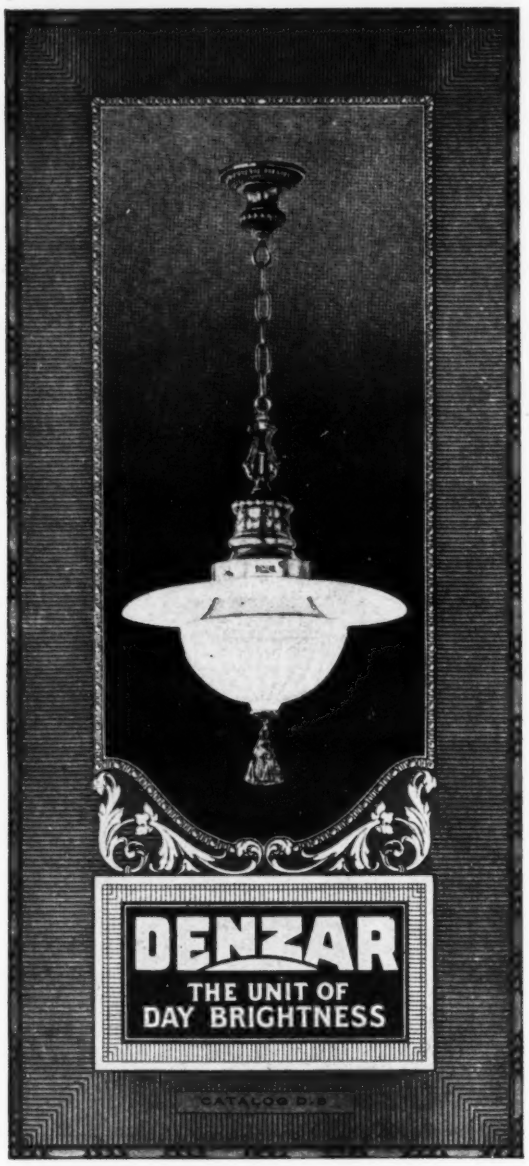
—Supt. George Melcher of Kansas City, Mo., has prepared a report showing that there has been an increase of $254,753 in the cost of operating the schools during the 1927-28 period. The figures show that the school costs for the fiscal year ending June 30, 1928, amounted to $6,077,514. In 1927, the total costs were $5,822,770. The cost per pupil in 1927 was $102.67. Last year it was $107.11, or an increase of $4.44, the highest in the history of the school system. The increase of the per-capita cost in 1927 over 1926 was 81 cents.

The report shows that the per-capita cost in 1927-28 for elementary schools was $88, while that for high schools was $141. The increase in cost has been attributed to the school expansion program started several years ago. During the past year the school board bore the burden of the expansion cost. This year and each succeeding year it is estimated the per-capita cost will be decreased as the attendance in these schools increases.

—The school board of Indianapolis, Ind., has adopted a budget amounting to $8,118,419, of which $6,897,675 will be raised by taxation on the basis of $1.03 levy on each $100 of city property.

Of the proposed schedule of money to be raised, $3,423,192 will go to the special fund; $4,234,700 to the tuition fund; $422,129 to the library fund, and $60,000 to the kindergarten fund.

—The school board of Muncie, Ind., has solicited a loan of $85,500 for the purchase of additional school real estate. It will cover the purchase of the land now being used for the combined field house and vocational school and for the Wilson High School.



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—Lima, Ohio. The school board has reduced the tax rate 42 cents for 1929, bringing the estimated tax rate from $25.20 to $23.80 for the year. The board has set aside 10 per cent of the fund for a reserve fund, which is expected to yield $67,000.

—Mansfield, Ohio. The voters have been asked to approve the proposition of continuing the 3-mill school-tax levy. The 3-mill levy is necessary to the operation of the schools nine months of the year.

—Wabash, Ind. The school board, in line with the retrenchment of city expenses, has made a reduction of two cents in the school tax levy.

—Powell, Wyo. The school board has been informed that the 8½-mill tax levy levied at the annual meeting in June, will produce only $37,000, instead of $44,000 as had been previously estimated. Due to the decrease in funds available, especially from the decrease in oil-royalty funds, the board finds that stringent economy must be practiced to make the available money cover the cost of operating the schools.

The plans for economy include the employment of fewer teachers, the adding of one mile without extra pay to the bus routes, and the placing of the cafeteria on a self-supporting basis. It is probable that a high-school tax levy will be necessary to provide additional funds for operating expenses.

—Muncie, Ind. The tentative budget of the school board for 1928-29 provides for an appropriation of $795,974 for school purposes, of which $614,716 will be raised by a school tax levy of 98 cents. The tax levy adopted for this year represents an increase of two cents, which is intended to meet the scheduled bonded indebtedness on the basis of modern methods of business and financing.

The special school-fund expenditure has been estimated at $209,293, but $213,260 must be raised for the fund by means of taxation. The increase is attributed to the building up of a working balance for the period following July, 1929. The working balance for the present year had become depleted due to the purchase of new real estate.

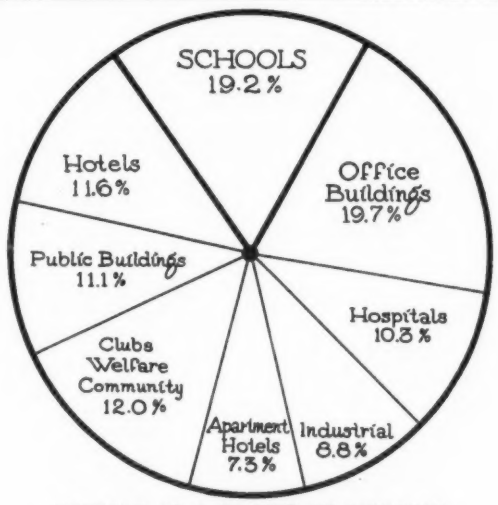
—Richland, W. Va. The school board recently held a meeting for ratifying a tax levy of $1.19 which had been adopted some time ago.

—Donora, Pa. The school board will submit the question of a bond issue of $325,000 to the voters at the regular fall election. The proceeds of the bond issue will be used for a new high school and recreation center.

—Union, W. Va. The Union school district has adopted a tax levy of $1.17 for the school year 1928-29. The levy provides 10 cents for the high-school maintenance fund, 15 cents for the elementary-school fund, 28 cents for the high-school-teachers' fund, 40 cents for the elementary-school-teachers' fund, 20 cents for the building fund, and 4 cents for the bond fund.

—Newport News, Va. The city clerk has announced a sale of public school and library bonds, to be held late this fall. A number of financial institutions and bonding houses have applied for information concerning the two issues of $130,000 and $45,000 respectively.

—Watervliet, Mich. The board of education has adopted a budget for the school year 1928-29 amounting to $59,200. This is an increase of approximately $3,000 over the expenditures of last year. The tax rate for school purposes has been reduced from $18 to $17 per each $1,000 valuation. The lower tax rate has been effected as a result of an increase in the total assessed property valuation, amounting to approximately $100,000, and a higher primary-school-fund apportionment. The apportionment of this year's fund amounts to $15.20 per capita of school population.



SCHOOLS AS A FACTOR IN BUILDING CONSTRUCTION

The chart illustrates the importance of schools as a factor in building construction in the United States in 1928. The money valuation of construction forecast in the various tpyes of building construction included in the chart total $2,965,000,000. The percentages which include apartment hotels, industrial buildings, hospitals, public buildings, hotels, clubs, welfare and community buildings, office buildings and schools, and are based on contracts let. They indicate that the public schools' share is 19.2 per cent, which is exceeded only by office buildings, with a percentage of 19.7 per cent. The estimated total construction in the form of contracts, for the first six months of 1928, was $237,798,300, and the total for 1927 was $379,795,700.

—Miss Mary Utoff, superintendent of Bureau county, Ill., in her annual report, shows that a total of $840,597 was expended for school purposes last year, with the cost of operation distributed over a total of 8,686 students. Of the total amount, $50,000 was derived from the state distributive fund, and the remainder, $804,265 from direct taxation on county real estate and personal property.

The greatest single item of expense in the operation of the schools was that paid to teachers and instructors, amounting to $476,487, or more than half of the total. Buildings, physical appurtenances, and sites, owned by the school systems of the county are valued at $2,492,980.

—Decatur, Ill. The annual audit of the board of education for the year ending June 30, 1928 shows total revenues of $702,252 and total expenses of $646,284, with an estimated excess of $55,968. There was a gain of $55,968 in the educational fund and a deficit of $5,658 in the building fund, or a net gain of $50,310 for the year. The audit shows a reduction in per pupil costs of $5.26 from $92.28 in 1927 to $87.02 in 1928.

Instruction salaries were decreased $25,451 due to the policy of the board in rearranging the instructors so that the teaching schedules are more properly balanced and unnecessary salaries eliminated. Other decreases in expenses made a total of $30,039, which, with the increased revenue, made a net gain of $75,361 for the year in the educational fund. Deducting from this a deficit of $19,392.81 from the previous year, gives a balance of $55,968.77.

The building-fund deficit of $5,658 of this year as compared to the deficit of $16,840.51 of last year, shows an actual living within the income this year and a reduction of last year's deficit of $11,182.42. In the building fund, the total revenue was $207,361, the bulk of which was taxes of $206,925.38. The total expense was $213,019.35, leaving a deficit of $5,658.09.

The report shows that the cost per pupil has been lowered $5.26 per pupil by a decrease in instruction salaries amounting to $4.87 per pupil. The largest single items in the lowered cost were instruction

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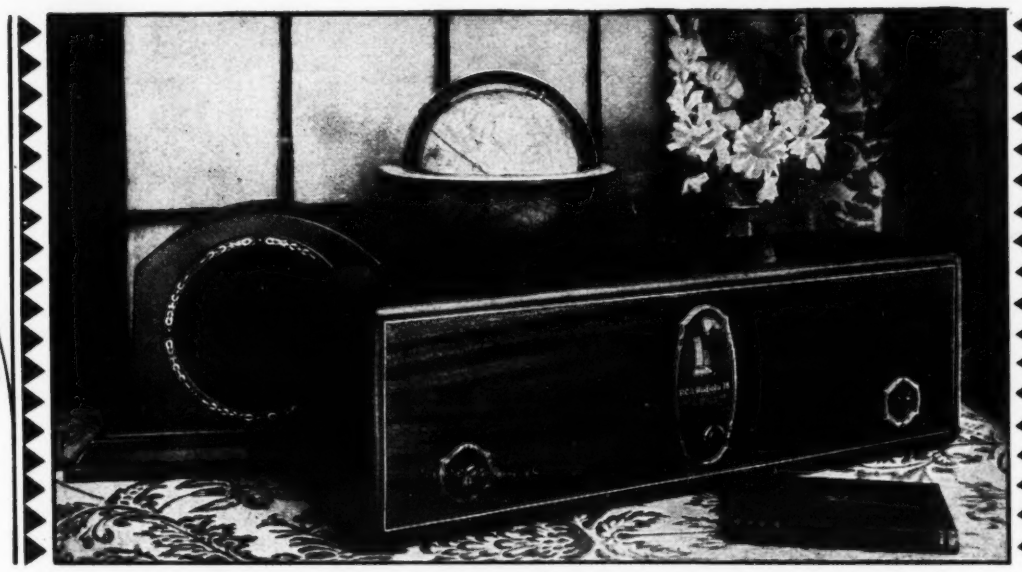

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RCA EDUCATIONAL HOUR 1928-29

From Oct. 26 to May 10 Walter Damrosch will conduct a series of educational concerts for schools, at 11 o'clock (Eastern Standard Time) Friday morning, through the following stations:

WJZ	New York	KWK	St. Louis	WHAS	Louisville	WHO	Des Moines
WBZA	Boston	WTMJ	Milwaukee	WSM	Nashville	WDAF	Kansas City
WBZ	Springfield	WCCO	Minneapolis	WMC	Memphis	WRC	Washington (11:30 to 12)
WBAL	Baltimore	KVOO	Tulsa	WSB	Atlanta		
WHAM	Rochester	WFAA	Dallas	WBT	Charlotte	WOW	Omaha
KDKA	Pittsburgh	KPRG	Houston	KOA	Denver	WJR	Detroit
WLW	Cincinnati	WOAI	San Antonio	WOC	Davenport	KYW	Chicago

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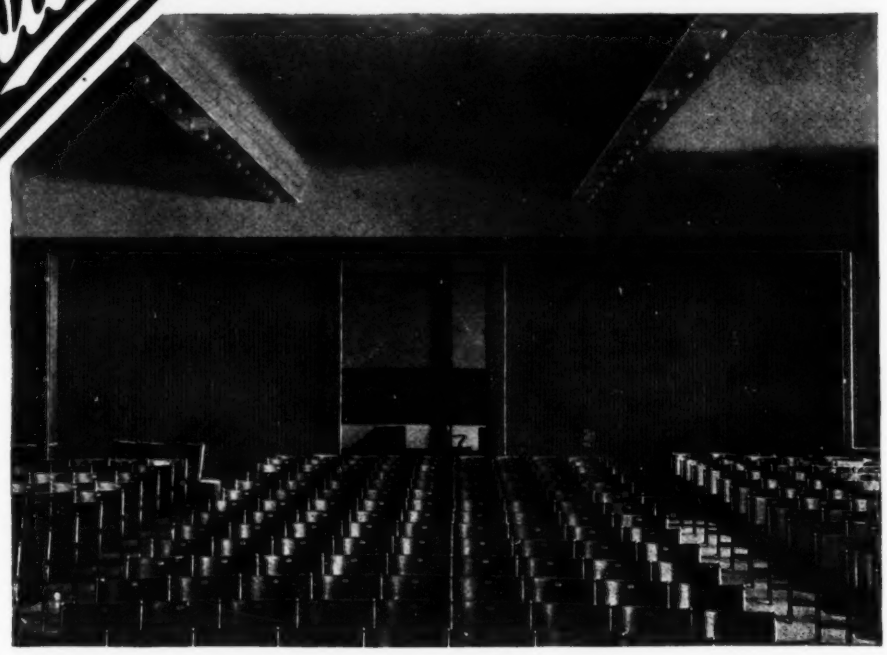

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(Concluded from Page 78)

supplies, next a cut in administrative expense of 26 cents per pupil, and operation supplies cut 9 cents. There was a decreased cost per pupil every division of the schools; the largest, $16.32, in the high school and the smallest, $2.25, in the elementary schools.

—The school board of Benton Harbor, Mich., has threatened to bring suit against the city government to prevent the assessment of street-improvement taxes against public-school property. It is the purpose of the board, through its attorney, to enjoin the municipality from collecting unpaid taxes, and to obtain a refund on all taxes paid to date, amounting to between $10,000 and $20,000.

—The electors of the Jackson school district of Jackson, Mich., in approving the school budget for 1928-29, voted to eliminate the item of $114,000 for school-building purposes. The action was due to the opposition of the taxpayers to an increase in taxes.

—Grand Rapids, Mich. The board of education has received a total of $668,055 from the state this year, of which $58,000 represented the 5 per cent of primary funds retained during the last two years during the test of the state law providing for the distribution of 5 per cent to poorer school districts. Since the law has been found unconstitutional, the accrued sums have been added to the total amount for the year. The board of education will have a surplus of $75,000 over and above the year's budget.

—The board of education of Milwaukee, Wis., has adopted a five-year building program to be completed in 1932 which will require $5,720,000 in bonds and $5,141,750 in cash. It is proposed to eliminate all school barracks within that period.

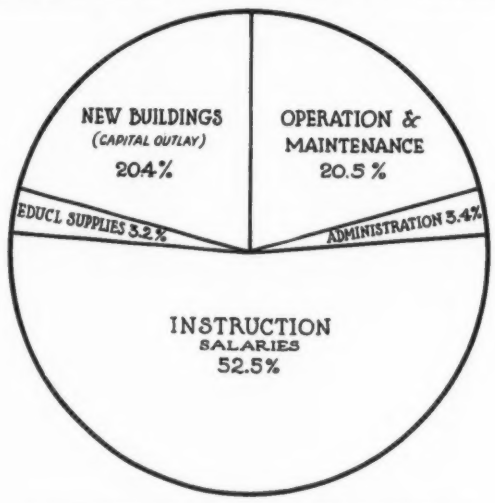
—Troy, Ohio. The schools of Miami county have received $479,325, or nearly one half of the total amount distributed in the semiannual distribution of tax funds by the county auditor. Almost twice as much was received by the schools as by the county, and more than twice as much was received by the schools as was received by all the municipalities combined.

A total of $73,357 was given to the Troy city school district. This fund was divided as follows: General fund, $57,576; sinking fund, $8,007; building and improvement fund, $7,774.

—Sacramento, Calif. Student-body funds in the school district are regularly audited under the direction of Mr. Ben Thomas. Under the plan adopted, students are not burdened with the responsibility of handling their own school money. More than $40,000 in student funds were handled by the auditor's office during the past year.

—In Arkansas it was believed that the problem of school support could be largely solved in the consolidation of schools without financial aid from the state. There are some areas, however, which cannot be assisted through consolidation.

Dr. Howard A. Dawson, director of research in the state department of education, cites an interesting example in Faulkner county, where in an area of 100 square miles there are five districts with an enrollment of 473 white children, representing about 98 per cent of their total enumeration. The poorest district of the five has an assessed property valuation amounting to $208 per white child enrolled in school, and the richest has $378 of assessed property valuation for each white pupil. The average for the five districts is $251. An 18-mill tax levied in the area of the five districts will yield only $4.63 per year for each white child enrolled in school. The state pays to these districts an average of $5.80 per white child enrolled in school, bringing the total revenue available annually for the education of each white pupil to $10.43.



DISTRIBUTION OF SCHOOL EXPENDITURES

The chart shows the cost of construction for buildings, operation and maintenance, administration, instruction, and educational supplies. The percentages show the averages for the various phases of expenditures throughout the country and will be found helpful in making estimates of the distribution of expenditures. Of the various phases of expenditures, instruction shows the largest percentage, 52.5 per cent, while educational supplies shows the smallest percentage, 3.2 per cent. The remaining percentages are new buildings, 20.4 per cent; operation and maintenance, 20.5 per cent; administration, 3.4 per cent.

—Owing to the fact that the total valuation of taxable property in Volusia county, Fla., as noted by Supt. George W. Marks, has been lowered by $2,000,000, the revenue for school purposes will be cut by $40,000.

—The Wisconsin department has also ruled that in cases where school money is tied up in a bank awaiting reorganization and money is needed for immediate use, and no tax is levied at the annual meeting, a special school meeting should be called at an early day for the purpose of directing the board to borrow money to met the present needs. The statute does not give the board authority to borrow money on their own motion unless a tax is levied beforehand.

—Shelbyville, Ind. The school board has adopted a school-tax rate of $1.15, which is a decrease of 5 cents over that of last year.

—The most complete confidence in the school board of East Rutherford, N. J., was shown recently when the citizens at a special meeting approved a loan of $6,500 additional and the expenditure of $7,333 in accumulated interest money for the equipment of the new $350,000 high school. It appears that unexpected price rises and other unforeseen difficulties had forced the school board to use up its original appropriation while still $5,000 short of the completion of the building. The amount will be provided through loans on notes payable out of the 1929-30 school budget.

—Huntington, Ind. The school board has adopted a school-tax rate of $1.34, which is an increase of 14 cents. Of the total tax, 10 cents will be used for the new Central School, and the remaining 14 cents as an allowance for the $605,350 decrease in valuation. The proceeds of the tax levy for this year will be $281,415, as against $261,786 for 1927.

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Fireproofness—daylight and fresh air are demanded in modern buildings for industrial and public use. Especially are they necessary to protect our growing children against the menaces of fire and ill health.

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Natural ventilation and maximum daylight for schools are cardinal principles in the design of Truscon Steel Windows. Fire protection, ease of operation, and economy are added features. All types of windows are available, including double-hung and projected windows, casements, and the Donovan Awning type, which is made especially for schools to prevent sun glare.

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BOX LOCKERS are especially desirable where space is crowded. On the floor space ordinarily occupied by two single tier lockers, six people will have locker accommodations, with six individual box lockers for private possessions, and one common large locker for wraps.

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BUILDING NEWS OF THE SCHOOLS

THE PADUCAH SCHOOL-BUILDING PROGRAM

Dr. George Strayer and Dr. N. L. Engelhardt, of Teachers College, Columbia University, have recommended to the board of education of Paducah, Ky., a three-step building program. In the first step, several building sites are to be purchased, several additions to sites are to be bought, and a four-room elementary-school building is to be put up to replace the Littleville District School. An elementary school to replace the present Arcadia School is also to be erected. The old Arcadia School is to be remodeled for junior-high-school purposes, and a senior high school is to be erected.

For the second step, an elementary school is to be erected, an addition is to be made to one of the junior-high-school buildings and the old elementary school is to be converted into shops for a junior high school. For the third step, a new unit is to be added to two school buildings and one elementary school is to be abandoned. An addition is to be erected to the junior high school.

SCHOOL BUILDING NEWS

—Supt. H. P. Harding of Charlotte, N. C., recently reviewed the progress made in the school system of that city during the past ten years. In 1918 the school property was inventoried at $160,000. Today the investment in the school plant is estimated at $2,100,000. The operating expenses ten years ago were $140,573. Today they are $742,494.

—Evansville, Ind. A $300,000 high school for colored students was occupied this fall.

—Spring Hill, Pa. Bids have been received for the construction of a one-story, four-classroom school, to be erected in the school district of Whitemarsh township. The building will be erected from plans prepared by Mr. Watson K. Phillips, architect, of Philadelphia, Pa.

—Hartford, Conn. A survey of high-school needs to cover sites and buildings for the next 20 to 25 years, has been recommended by Mr. J. W. Beach, member of the high-school committee, preparatory to an appropriation for a high-school site in the northwest section. It is expected that the matter of an appropriation for a high school will be placed before the voters at the November election.

—Atlanta, Ga. The school board will name the latest new school the Annie E. West School, in honor of Mrs. Paul West, a board member who has devoted a good deal of time to the interests of the school.

—St. Joseph, Mo. The school board has received a request from the local parent-teacher association, asking for a bond issue of $2,225,000 for new buildings. It is expected that an advisory committee will be appointed to work with the school board in arranging the details for the bond issue.

—New Orleans, La. In connection with its building program, the Orleans parish school board has awarded a contract for the erection of a 34-room school for colored pupils. The school will be known as the Valena C. Jones School. The school board has received bids for the erection of a 40-room elementary school, to replace McDonogh schools Nos. 2 and 3. The school will be known as the Charles J. Colton School.

—Eugene, Oreg. The growth of the school plants in Lane County, Oregon, is described in the recent report of Mr. E. J. Moore, county superintendent of schools, when he shows that $16,566 was spent for new sites, $104,091 for new buildings, $27,761 for equipment of buildings and grounds, and $11,636 for alteration to old buildings. A total of five schools were erected during the past year.

—Indianapolis, Ind. The new Shortridge High School is being rushed to completion. The building has a normal seating capacity of 2,669 pupils and will represent an investment of $1,250,000. The building will be occupied on November 1.

—Madison, Wis. Supt. R. W. Bardwell has been directed by the school board to prepare a five-year school-building program, to include recommendations for buildings, sites, and other needs of the school plant.

—The John Irwin School, at Fort Wayne, Ind., was occupied with the opening of schools in September. The building accommodates 500 children, with four additions, making a combined capacity of 1,500 children.

—A recent report of the industrial-relations department of the National Association of Manufacturers, shows that it costs 39 cents per cubic foot to erect school buildings in Syracuse, N. Y. During the year 1927, construction work done on schools under open-shop conditions cost an average of 29.8 cents per cubic foot, while work under closed-shop conditions amounted to 36.7 cents per cubic foot. The cost of school buildings was reported as highest in Boston, where it costs 55 cents per cubic foot, and lowest in Los Angeles, where it costs 20 cents per cubic foot.

—Cleveland, Ohio. The preliminary plans for the $2,000,000 school-board headquarters building have been presented to the city plan commission by Mr. G. M. Hopkinson, school architect. It is expected that a proposal for a bond issue will be submitted to the voters at the regular November election. The building will be erected on the school-board plot at the corner of East Sixth Street and Rockwell Avenue.

—Wilkes-Barre, Pa. The school board has received the preliminary specifications for school-building improvements amounting to $85,000.

—The new $220,000 Edison School at Rock Island, Ill., was opened with music and oratory under the direction of Supt. J. J. Hagan.

—Fremont, Ohio. The board of education has taken steps to float a bond issue of $500,000 for new buildings and repairs. The bond issue follows recommendations made by Dr. E. F. Ashbaugh and T. C. Holy. The board has entered into a contract with Messrs. S. H. Shively & Sons for the supervision of the building construction work.

—Kenosha, Wis. The board of education and the city council has discussed plans for an extensive building program involving a bond issue of $600,000. The bond issue is to provide $200,000 each year for the next three years, to cover the cost of construction for the proposed junior high school.

—Three hours after a proposal to build a school building in Blairstown, N. J., was defeated, for the second time within a year, the old two-story frame structure was leveled by fire. The building was insured for $25,000.

—New Orleans, La. Three new school buildings completed during the past summer, were occupied with the opening of the new school term in September. It is estimated the new buildings will increase the capacity of the schools by 1,200.

In addition to these buildings, it is planned to begin the erection of three additional buildings during the coming fall and winter. The largest of

(Concluded on Page 84)

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(Concluded from Page 82)

these is the Colton School, which will be started this fall and will be ready for occupancy in 1929. This building will replace two other buildings and will provide accommodations for 1,500 pupils.

—Clifton, N. J. The city board of estimate has approved a request of the board of education for $8,000 for necessary repairs to the school buildings. The request was made when it was discovered that the reserve repair account was in danger of being overdrawn.

—Abington, Pa. The school board has issued a call for a school-bond issue for $375,000 at the coming November election. The proceeds of the bond issue will be used for the erection of a 20-room junior high school and for an 8-room elementary school.

—The Galsburg, Ill., board of education has purchased a tract of 3⅓ acres for a school site. No immediate use is seen for the property, but it is being acquired at this time in anticipation of future needs, Superintendent O. O. Young stated. The price was attractive and the board thought it advisable to close the deal.

—The Indianapolis, Ind., board of education has sold school bonds amounting to $52,000, the proceeds to be used for the purchase of two high-school sites.

—The new $40,000 grade school at Wyoming, Stark county, Ill., will be named the Sandham School in honor of W. R. Sandham, one of the oldest educators in the country.

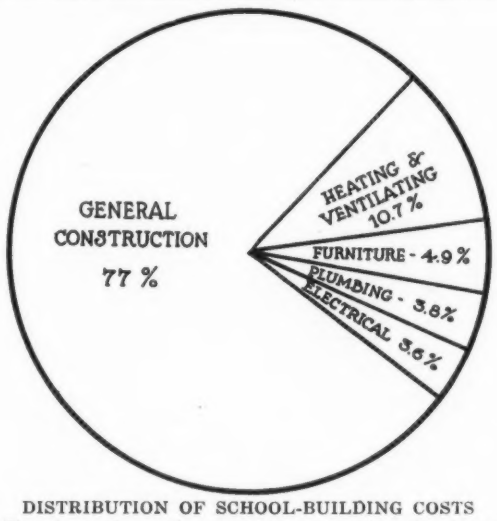
—Andover, Ill. The appellate court has sustained a decision of the circuit court that the members of the high-school board may not be held personally accountable for costs involved in the erection of a high school in 1925. It appears that the construction of the new school was halted by an injunction, and the old board was sued by the new board for $15,000. The lower court had ruled that the old board acted within its rights in expending the money for the school and the decision was later upheld by the higher court.

—The new administration building for the school system of Fort Wayne, Ind., was occupied on July 1. The building provides space for the administrative offices, stock and supply rooms, and supervisors. A small assembly room is also provided for principals' meetings.

—Norwood, Ohio. The school board has agreed to a reduced tax rate, a reduction of .21 mills having been made in the tax for school purposes. The reduction means that the appropriation for schools will be $575,000 for 1928-29, as compared to $590,000 in 1927-28.

—The board of education of Warren, Ohio, has removed its administration offices to the John Musser building in which it will have ample room for its accountants and for its store of supplies. The offices were formerly located in a downtown bank building at a rental of $200 a month. The rental of the new building is $125 a month with a two-years' option to buy the same at $19,750.

—Gary, Ind. The school board has adopted a budget of $3,307,710 for the school year 1928-29, with a possible returnable amount of $2,396,283, by direct taxation. Revenue from all sources would increase this to $3,096,494. The estimated amount for operating expenses is $2,195,223. Based on an assessed valuation of $171,784,045, the school-tax rate will be $1.50.



DISTRIBUTION OF SCHOOL-BUILDING COSTS

The chart shows the percentages covering the division of expenditure in new building. Of the percentages shown, general construction, with 77 per cent, is the largest. The other percentages are heating and ventilation, 10.7 per cent; furniture, 4.9 per cent; plumbing, 3.8 per cent; electrical work, 3.6 per cent. It is brought out that a school-building program involving an expenditure of $20,000,000 in a city or state, creates a market for over two million dollars' worth of heating and ventilating equipment.

—Cleveland, Ohio. Three new schools are in process of construction at the present time and it is planned to award contracts for three additional buildings this fall. A total of 154 separate buildings were occupied with the opening of the new fall term.

—Cleveland Heights, Ohio. A new school, having a capacity of 450 pupils, was opened in September. The building houses the children of the Noble Road section, one of the most rapidly growing sections of the city.

—Salt Lake City, Utah. Plans are being prepared by the school board for one of the most extensive school-building programs ever attempted in the history of the school system. A bond issue voted some months ago provides $1,500,000 for the erection of a new senior high school and for additions to four junior high schools. The plans call for the completion of the junior-high-school additions in 1929 and for the senior high school in 1930.

Two new buildings, the Bryant Junior-High-School Addition and the Highland Park Grade School, were completed and occupied in September. The Bryant addition will double the accommodations at that school, giving accommodations to 300 more pupils than formerly.

—The board of education in Cheltenham township, Pa., has appropriated more than $250,000 for a junior high school in Wyncote, and for an addition to the Glenside school in Glenside. The Abington township board has asked the voters to approve a bond issue for $375,000 in November. The proceeds of the bond issue will be used for the erection of two school buildings.

—According to Mr. F. A. Edmondson, superintendent of schools of Mecklenburg county, Pa., a budget of $798,000 has been adopted for school purposes during the school year 1928-29, of which $198,000 will be expended for new school buildings. This amount will be increased by the addition of other money received from court fines and similar sources.

—Sturgis, Mich. According to Supt. C. M. Ferner, the public schools are again congested this year, despite the fact that a new building was erected less than a year ago. The congestion arises from the fact that a hundred additional pupils have enrolled. The school census shows a total of 1,965 pupils of school age in the city.

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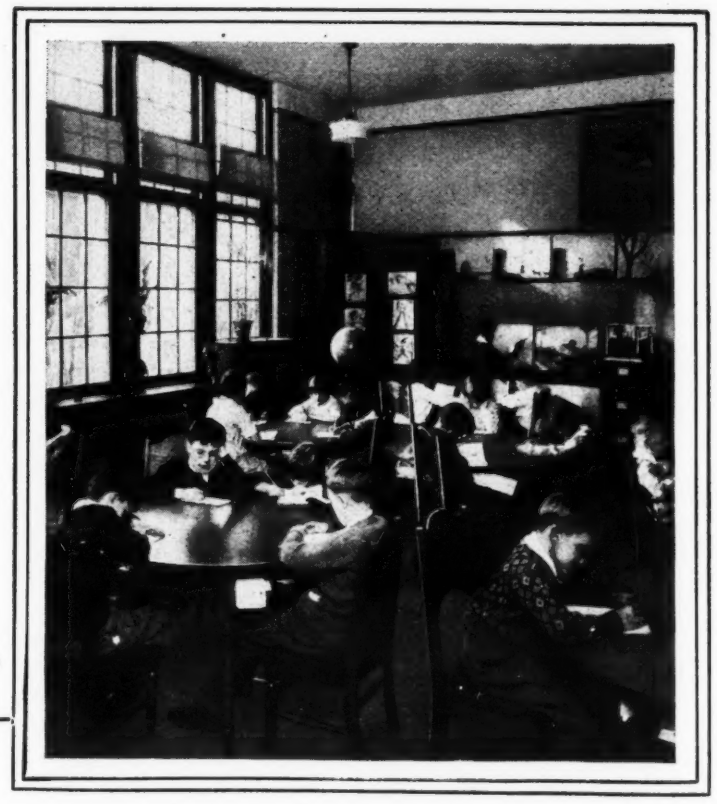

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DAY in . . . day out . . . summer and winter, the windows of your school can bring health to pupils . . .

Once installed, they need never be touched. They do their amazing work silently, efficiently. These panes give children new vitality . . . new energy . . . better health . . . more sturdy bodies, sparkling eyes and glowing skin . . .

All these things are possible in *your* school with Vita Glass. Investigate this marvelous health factor.

What caused these remarkable results

An eminent English scientist made the amazing discovery of this window glass that would transmit indoors the vital health rays of sunlight—the ultra-violet rays shut out *entirely* by ordinary glass.

In Vita Glass he gave to schools a means of bringing to pupils these rays. The rays which build stronger, healthier bodies, stimulate physical and mental activity, making better and happier children.

Vita Glass is a highly efficient and inexpensive glass that admits, in volume, the vital ultra-violet rays. It also admits *more light*, and transmits all colors in their true brilliance.

The Smethwick School Test

In Smethwick, England, two schoolrooms—one fitted with Vita Glass, the other with ordinary window glass—both filled with boys of the same age and physical character, were placed under observation. Weights and heights of boys in both rooms were taken. In ten months they were taken again. Here is the astonishing result!

Pupils in the room with Vita Glass gained an average of 6.11 pounds against 2.83 in the other class. The gain in height was 1.86 inches against 1.52. Absences due to illness were decreased over 40% in the room having windows of Vita Glass.

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Other schools are proving as conclusively the ability of Vita Glass to bring indoors to growing bodies nature's most effective tonic—sunlight.

With windows of Vita Glass school children need no longer suffer the devitalizing effects of being shut indoors for many hours a day, winter and summer, from the vital ultra-violet rays which exist in sunlight. Pupils are not cut off from the rays doctors and scientists say their bodies need so badly.

Vita Glass is clear window glass . . . no different in *appearance* from the glass you now use . . . as easy to install as are the ordinary panes. Its slightly higher cost is repaid a hundred fold by its health advantages.

Coupon brings more data

The whole story is too long to tell here. Mail the coupon today. It will bring you full information about Vita Glass. Take advantage of this opportunity to learn all about this health guardian that should be in your school. Address Vitaglass Corp., Dept. D. 5, 50 East 42nd Street, New York City.

**Vita is the trade-mark (Reg. U. S. Pat. Off.) of and indicated glass and glassware manufactured for and sold by Vitaglass Corporation, New York City.*

Vitaglass Corporation,
50 East 42nd Street, New York City.

Please send me more complete data on Vita Glass in actual use, with special reference to its benefits in schools.

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Address.....

City.....State.....

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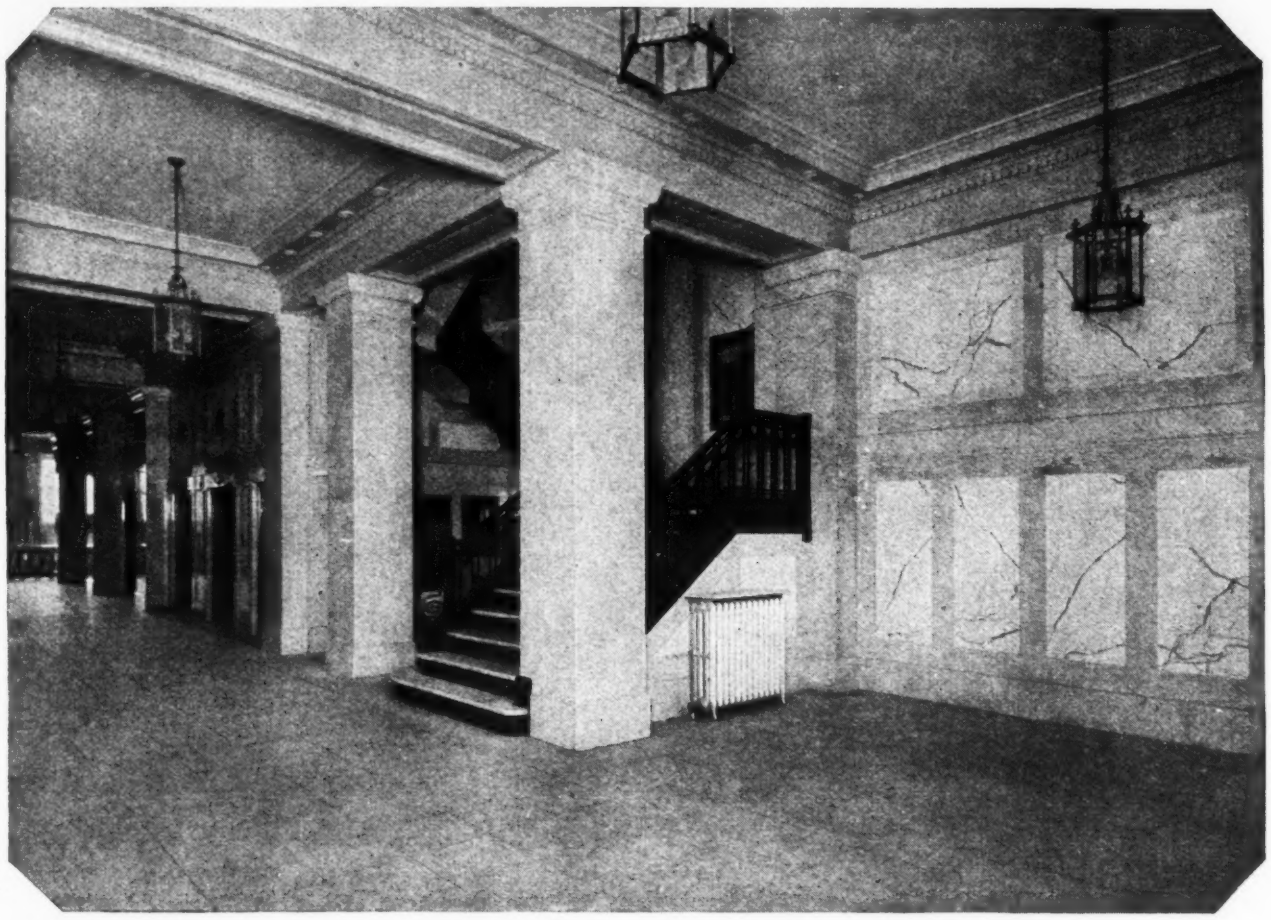
Each pane is cut to size, and bears the trademark label

LAMBERT VITA GLASS



FLOOR, WALLS, COLUMNS AND STAIR TREADS ARE OF MARBLE

Suggesting Dependability

TIME was when women wore hoop skirts and men adorned their faces with sideburns and whiskers—and in those days the reputation of a business was founded largely on the personality of the owner. Today, men may come and men may go, but a business is an institution that builds a reputation of its own, founded on things accomplished. Today, accomplishments consistently reflect the character of product and service.

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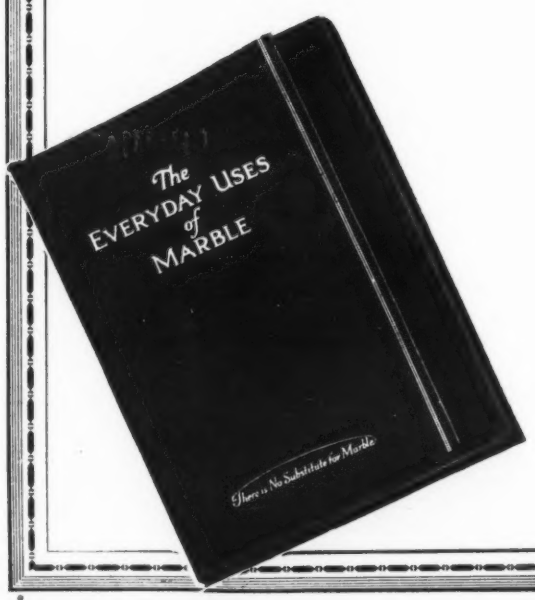
Happily, the simpler types of such marble treatments are inexpensive. In fact, when one considers that there is practically no upkeep or maintenance costs, marble is ultimately and actually the most economical of finishing materials.



There is No Substitute for Marble

Send for this handsome portfolio of Marble Suggestions. It contains reproductions made from actual photographs of typical marble installations in many types of buildings, including commercial, civic and residential. The portfolio will be sent without cost, of course. Address Department 10-K.

NATIONAL ASSOCIATION *of* MARBLE DEALERS
ROCKEFELLER BUILDING - CLEVELAND, OHIO

For Permanent Safety
—Alundum Stair Tile

School building steps must be more than just safe — they must be *permanently* safe. They must not become smooth and slippery under the constant scuff of youngsters' feet. They must not wear into dangerous hollows.

The extreme hardness and toughness of Alundum abrasive, the basic material in Alundum tiles, assures permanence. They stand up and remain non-slip under the most severe traffic conditions. And they have no grooves or corrugations to encourage tripping.

The stairway illustrated is in the Wilson Avenue School addition, Newark, N. J., Guilbert & Betelle, architects. The tread nosings are 6 x 6", brown Alundum Stair Tile.

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SCHOOL BOARD NEWS

LOCAL UNITS GOVERN SCHOOL

"Even if education is considered a state function, the city school districts are allowed great freedom in the management of their schools," says W. S. Deffenbaugh, chief of the city schools division of the United States Bureaus of Education. "State control of education does not mean that the state through a central office actually directs and supervises schools within any of the local districts. The state delegates the authority in educational matters to the city and other school districts that have been created.

"City school boards are as a rule granted broad powers. Among the powers and duties usually granted such boards are: to appoint administrative officers, supervisors, teachers, truant officers, and other employees and to fix their salaries; to adopt courses of study and textbooks; to purchase supplies and equipment; to erect school buildings and to keep them in repair; to levy school taxes or to submit estimates to the city council or to the board of estimate; to prescribe the duties of teachers and other employees; to organize schools and classes of various kinds, etc."

Mr. Deffenbaugh quotes typical law decisions as follows:

1. "The schools in which are located and trained the children who are to become the rulers of the commonwealth are matters of state and not local jurisdiction" (122 Ind., 642).

2. "All laws, whether in city charters or elsewhere, designed to affect the free schools, may be regarded simply as school laws. And although they may require the boundary lines of cities to be adopted as lines for the formation of school districts, and that city officers perform the duties of school officers, yet this is for convenience only, and the districts thus formed and the officers thus required to perform duties, are to be regarded simply as agencies selected by the state to provide a system of free schools. Although the limits and officers of the two corporations are the same, their purposes and objects are different, and they are, in fact, separate and distinct corporations" (87 Ill., 595).

3. "School districts are not strictly municipal corporations but territorial divisions for the purpose of common schools, exercising within a prescribed sphere many of the faculties of a corporation" (42 Pa., 358).

OPERATES WITHOUT COMMITTEES

The school board of Somerville, Mass., in February, 1927, voted to eliminate standing committees and to substitute for these a committee of the whole. This change was effected by the adoption of a set of rules and the elimination of such rules as were in conflict with it.

Under the new rules, five members constitute a quorum for the transaction of business. All matters voted upon by the committee of the whole are reported to the school committee for its approval.

The function of the committee of the whole is to consider and pass judgment upon matters which require the action of the school board. These include (*a*) matters referred to the committee of the whole by the school committee, (*b*) matters introduced in writing by members of the school committee, and (*c*) matters introduced by the secretary of the board.

The committee of the whole is given all the jurisdiction and power previously exercised by any of the standing committees of the board.

SCHOOL ATTENDANCE IN THE UNITED STATES

The United States Bureau of Education, in a recent bulletin, presents some statistics of school attendance which should prove of interest to educators and school administrators.

The report shows that in 16 southern states, in 1925-26, the number of white children from 5 to 17 years, inclusive, was 7,322,084, and the number of colored children was 3,114,750; thus the percentage of white children of school age was 70.2, and the percentage of colored children was 29.8.

The enrollment in the schools during this same period was 6,071,195 white children and 2,141,206 colored children. For every 100 white children of school age, 83 were enrolled; and for every 100 colored children of school age, 69 were enrolled.

The improvement in attendance requires not only trained teachers, but also a strong interest in the schools, especially by the parents of the pupils, that they may place the emphasis on regularity and punctuality in attendance.

The teachers employed in these 16 states during 1925-26 were 238,132, of which 192,466 were white, and 45,666 were colored.

BOARDS OF EDUCATION

—Madison, Wis. The administrative department of the board of education is badly in need of more adequate offices for the handling of the business of the school system. It is pointed out that the quarters of the special supervisors are especially inadequate and that effective work cannot be done under these conditions.

The board is planning the erection of an administration building with space for housing all of the administrative offices of the schools. It is probable that additional space will be rented in some office building until the new building is erected.

—Minneapolis, Minn. The board of education has passed a rule, which requires that all remaining fraternities must immediately disband. Failure to disband means suspension or dismissal from school. The rule ends a four-year controversy over high-school fraternities.

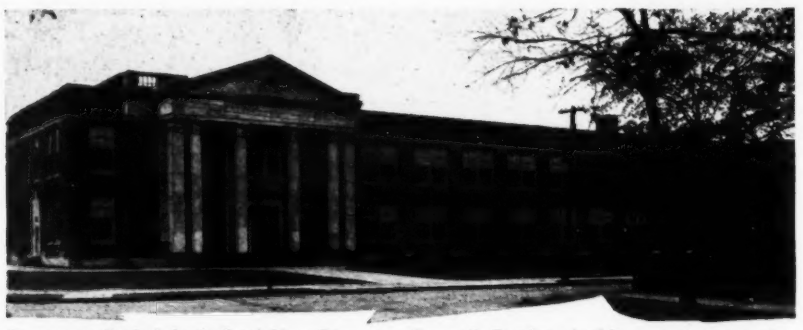
—Findlay, Ohio. The local board of health has issued an order making it compulsory for school children to be vaccinated for smallpox.

—Johnstown, Pa. The school board has adopted a schedule of tuition fees for nonresident pupils in the schools. The rates will be $7.60 for elementary grades, $11.83 for the junior high schools, and $18 for the senior high school.

—The school board of Springfield, Ill., has under consideration the business-manager plan for the school system.

—The school board of Fillmore, N. Y., recently failed to carry a proposition to reduce the membership from seven to five members.

—Corry, Pa. The school board has received tentative plans and specifications for the proposed athletic field and school playground to be developed on the school property. The plans call for a football field, a baseball diamond, a running track, two playgrounds, three tennis courts, two croquet courts, two volley-ball courts, and a horseshoe-pitching



Sewickley High School, Sewickley, Pa., Press C. Dowler, Architect, Pittsburgh, Pa.

SCHOOL ROOMS THAT ARE AIRY--BUT DRAFTLESS

Williams Reversible Window Equipment gives pupils and teachers the benefit of fresh air ventilation without danger from drafts, due to the fact that either or both sash can be tilted at any angle. Incidently, this equipment greatly reduces window cleaning costs, because it permits all cleaning to be done from the inside.

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For 25 Years Manufacturers and Installers of Reversible Window Equipment

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court. It is expected that the football field will be ready for use this fall.

—Cleveland, Ohio. The school board has rejected a dual recreation proposition, under which all city and school-board recreational facilities were to be invested in a recreation board. The present policy of independent operation of playgrounds by the city and school board will be continued.

—Council Bluffs, Iowa. Under a new policy of the school board, the office of superintendent of buildings and grounds has been placed under the direct supervision of the superintendent of schools. The change is another step in the policy of the board to unify the various school departments under one head. It is expected that the new plan will make for cooperation and unification of the school plant.

—Lawrenceville, Ill. The school board has adopted rules governing entrance requirements and tuition fees. Nonresident pupils will be charged a tuition fee of $30.

—Attorney General W. M. Brucker of Michigan, in adjusting a controversy at Chelsea, Mich., has ruled that a school board is within its rights in employing a superintendent for two years, when its action is reasonable and in good faith.

It appears that the old school board at Chelsea had cancelled the superintendent's contract and had given him a new one for two years. At the subsequent election, the board failed of reelection and the new board made an effort to dismiss the superintendent on the basis that a board could not employ a head for more than one year.

—A mandamus action has been brought by the school committee of Lowell, Mass., against the mayor and city council to compel an appropriation of $1,461,535 for the conduct and maintenance of the public schools for the current year.

—Shrewsbury, Mass. The school board has completed a study of the salaries paid to janitors of buildings of two to fourteen rooms and larger. The study was undertaken as a means of fixing a basis for the compensation of janitors.

—East Pembroke, N. Y. The membership of the school board has been increased from five to nine members. The following trustees were elected: George Kern to succeed himself; Fred B. Crawford, A. H. McCargar, S. H. Hamilton, Charles Powers, and Starr Searls. Other members of the board are Raymond Fincher, George B. Price, and J. L. Dymond.

—West Boylston, Mass. The school board has asked the state education department to make a survey of the schools, particularly that phase relating to the housing conditions. It is planned to provide some additional school facilities.

—Indianapolis, Ind. Mr. Albert F. Walsman, business director of the school board, recently recommended that the old library building now used as school-board headquarters be sold, and that the school-board offices be moved to a new site adjoining the plaza. It is planned to convert part of the proceeds of the sale of the old building to the construction of a new building in keeping with the plaza buildings. The estimated valuation of the property is around $500,000. The site was originally purchased by the board for $41,000, and the property was assessed at $375,000 in 1920.

At a meeting of the board in which the sale of the library building was discussed, the board refused to consider a sale of the property. The action was taken on the ground that the value of the property is increasing, and that the board, by holding back the sale, may make money for the school system as against permitting a real estate man to make money on the proposition.

—Sioux City, Iowa. In accordance with a program of economy, the offices of the board of education and the superintendent of schools have been moved from the city hall to rooms on the first floor of the Wilson Junior High School. The change is expected to relieve much of the congestion in the superintendent's office and will effect a saving of more than $2,000 a year.

—The Muhlenberg (near Laureldale, Pa.) township school board has fixed the high-school tuition rate for 1928-29 term at $101.13, and for grade schools at $46.47. The school board has also decreed that the nonresident tuition fees must be paid in advance.

—The school board of Holland, Mich., fixed the nonresident tuition for high-school students at $125, and the junior high and all grades at $100 a year.

—Mr. S. J. Chappel, secretary of the civil service board of Los Angeles county, California, in a report to the board of supervisors shows that Los Angeles county has fallen behind the other counties of southern California in the matter of the compensation of the county superintendent. Mr. Chappel has asked that the board raise the salary of the superintendent of schools of the county from $6,600 to $9,000 per annum. Mr. Chappel points out that San Diego county pays $9,000 to its superintendent, Fresno pays $8,000, and Los Angeles city pays $15,000. The proposed increase in salary calls for $7,200 the first year, $8,400 the second year, and $9,000 a year thereafter.

—The school board of Lewiston, Me., declared against the sabattical system of granting teachers leave of absence for study and travel.

—Danville, Ill. The school board has adopted a rule barring the appointment of married women as teachers. Teachers who marry during the school term will automatically sever their contract to teach. The rule is not retroactive, since it permits teachers who have been on the staff for several years to remain.

—Dover, Ohio. The city council has ordered the board of education to install water meters in each of the five city schools. In the future, all water consumed in the schools must be paid for by the school district.

—Chicago, Ill. The bureau of safety of the board of education, in a recent report, shows that the dangerous age for children on streets is between 5 and 9 years, and the most dangerous time of day is between 4:00 and 5:00 p.m. The time-of-day table shows 175 injured and 17 killed between 4:00 and 5:00 p. m., and 157 injuries and 12 deaths in the hour following. The report urges all drivers to go on the assumption that every child is bent on committing suicide under the wheels of some driver's car. In passing schools, the speed limit should be not more than twelve miles an hour and then the greatest vigilance should be exercised at all times.

The board of education has asked for suggestions from motorists to be given to the children in connection with the safety talks to be given regularly during the school sessions this year.

—Monroe, Mich. The local city commission has accepted the Central School building as a gift from the board of education. The building will be used for municipal purposes and will revert to the original owners in event of failure to comply with the terms of the deed. The building which was erected in 1902 is no longer in use as a school since the completion of the new high school. The building

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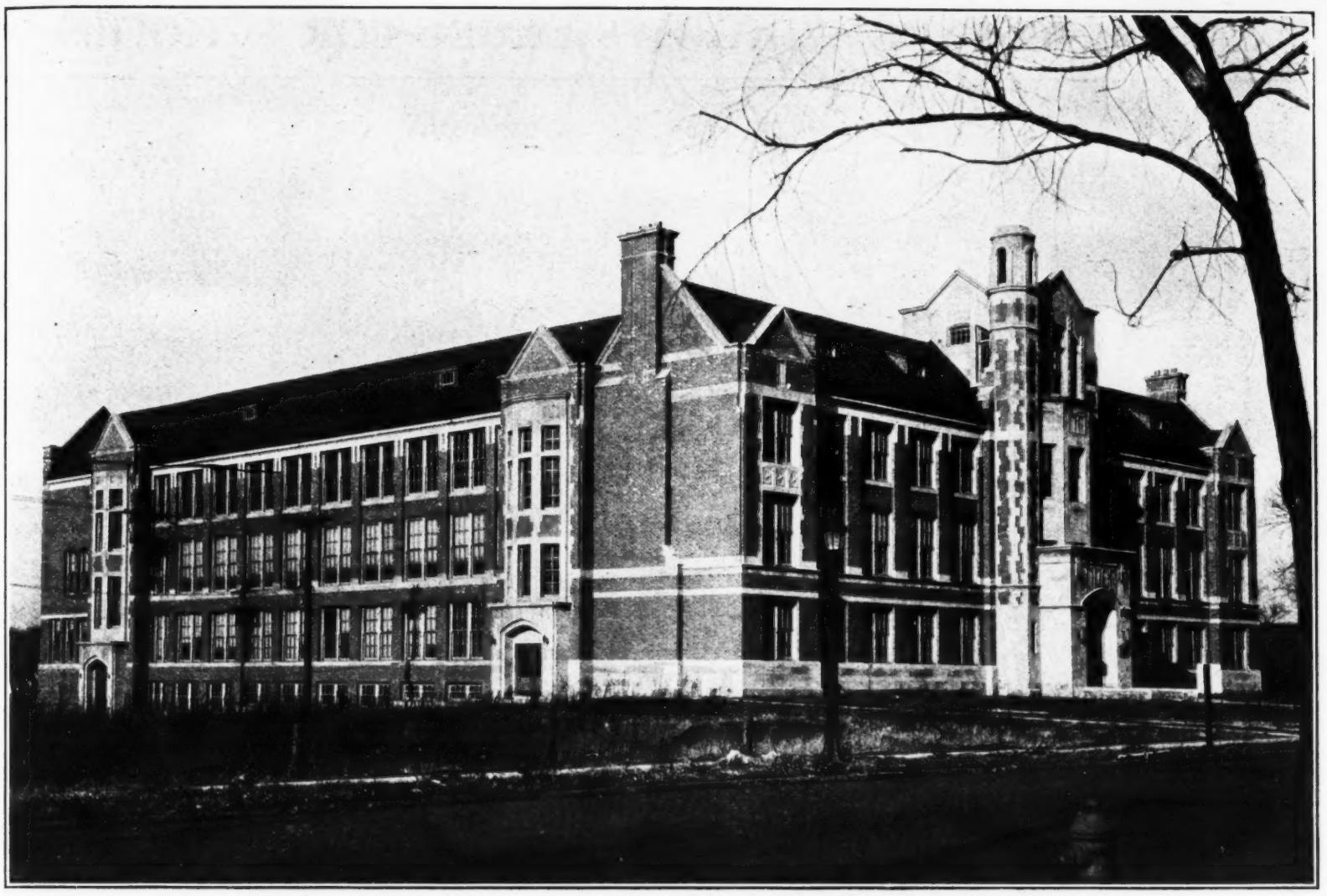

National Kindergarten and Elementary School College, Evanston, Ill. Warren Holmes-Powers Co., Architects

Variations Practically Without Limit

AS the building shown here evidences, Indiana Limestone trim affords a means of securing unusual beauty at low cost. The variations possible are practically without limit and architects are able to add greatly to the rich appearance of a school building by the skilful use of this beautiful, light-colored natural stone.

So moderate in cost is Indiana Limestone that nowadays there is a notable trend in public school architecture toward using Indiana Limestone for the entire facing of the school building. Many if not most of the finest college buildings in the country are built entirely of Indiana Limestone, and these buildings offer abundant suggestions in design and arrangement. The durability of Indiana Limestone makes its use an economy. No other building material can boast so low an upkeep cost.

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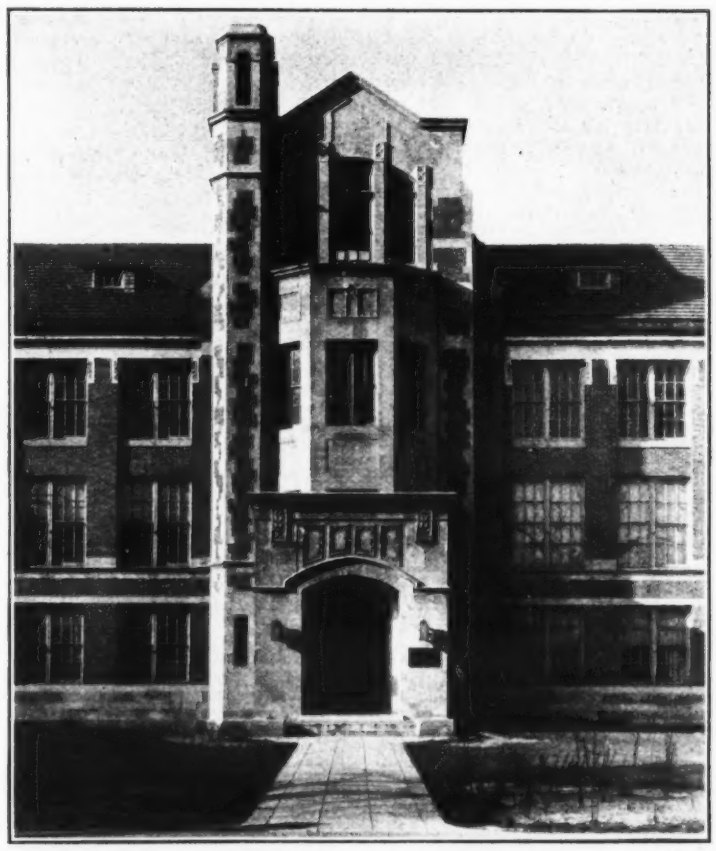

Detail Entrance National Kindergarten and Elementary College, Evanston, Illinois

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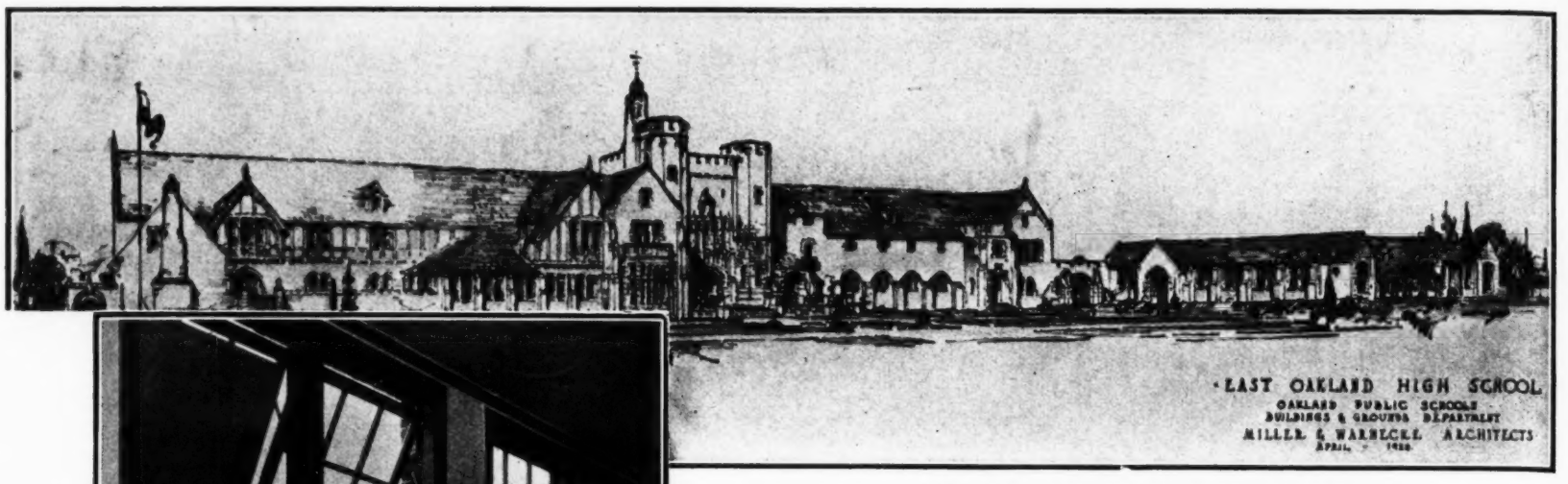

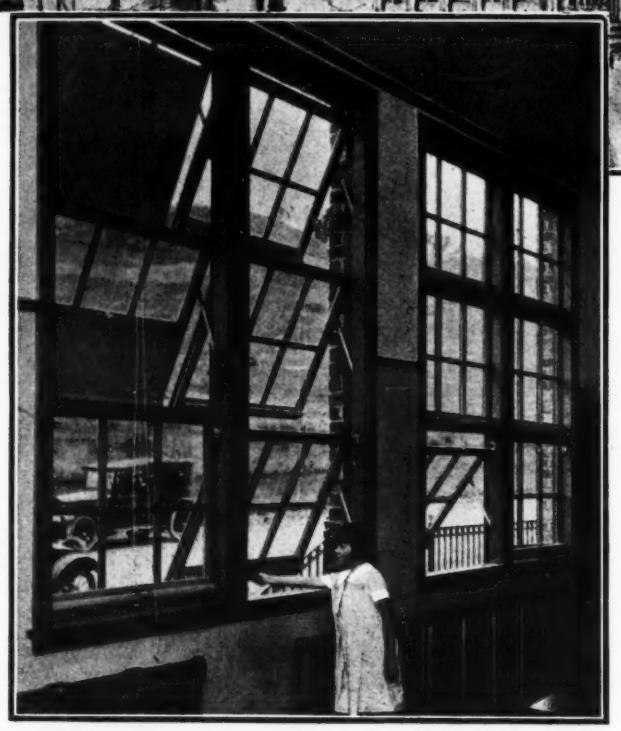

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Miller & Warnecke, Architects

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(Concluded from Page 88)

and lot are estimated to be worth between $25,000 and $30,000.

—Nokomis, Ill. Upon the suggestion of the state high-school inspector, the school board has discontinued the unit system and has placed the high school on the north-central association list.

—Aurora, Ill. Supt. K. D. Waldo has announced the opening of a bookstore for pupils of the east-side schools. Under the plan, pupils will be able to obtain practically all their textbooks at 10 per cent above actual cost, which will result in a substantial saving for each pupil. Profits from the sales of books will be used to purchase books supplied to indigent pupils.

—The school board of Herrin, Ill., has continued its policy of soliciting pupils' cast-off books which are of no further use to them. For the past two years, the board has used this method of obtaining books for children who would otherwise be without books. It is pointed out that each year, at the beginning of the school term, there are a number of miners out of work and the pupils often find it impossible to purchase books.

—Tyrone, Pa. Mr. R. A. Miller, a member of the school board, has been elected secretary, to succeed Mr. B. E. Woodring who resigned from the office in July. Mr. W. C. Van Scoyoc has resigned as a member of the board because of a change of residence.

—Mr. William H. Book has recently given an opinion to the effect that members of the board of education of Indianapolis, Ind., must be elected every two years beginning with 1929, in order to conform with the city-manager-charter law. Under the city-manager form of government, regular city elections must be held biennially instead of quadrennially. The election of board members will be held biennially, three members at one elction, and two at the next, to serve terms of four years each.

The first election under the city-manager plan will be held the first Tuesday after the first Monday in November, 1929, when the city-manager commissions will be elected.

—Watertown, Wis. The board of education has increased the tuition rates for the nonresident students in the schools. This year tuition pupils attending the high school will pay $90 a year, or an increase of $10. Pupils in the grade schools will be charged $25 per year, while pupils in the higher grades will pay $15 per year.

—New Ulm, Minn. The school board has rejected a plan to require high-school girls to wear uniforms. The plan failed because of the opposition of students' parents.

—The board of education of Oshkosh, Wis., was thrown into a deadlock over the reappointment of E. G. Beardmore, business manager for the board. Differences of opinion as to policy have arisen between the members.

—At Alton, Ill., Supt. W. R. Curtis informed the public as to the time given by the board to the planning of a new high school and general administrative labors. The Alton Telegram comments as follows: "In all, the Alton board members each gave 34 eight-hour days to attending special meetings, in addition to regular meetings of the board. In five years the school board has met 164 times at regular and special sessions, and not a man ever got a cent for his services. His only reward must be his consciousness of having done his best. It will be a matter of satisfaction to the school-board members that it is said by experts that they got a remarkable money's worth for what they spent of the public money, even though they were handicapped on some points due to no faults of their own. They must have made mistakes themselves, or they would not be human. They gave to their job a complete devotion in which they served the public as well, or better, as they served in their own business connections."

—Helena, Mont. The school board has approved contracts for the education of pupils living in Districts 20 and 30, comprising Unionville and Longview. Under the arrangement, the outside districts must turn over to the school district all revenues derived from state and county apportionments, together with revenue from a ten-mill tax levy. The district in turn, allows the outside district the actual cost of the transportation of pupils to an amount not exceeding $80 per pupil per school year.

—The representatives of the various teachers' organizations of New York City have been assured that the board of education will not divert to nonacademic purposes, the funds which have remained unused as a result of the repeal of the supermaximum salary schedules. To the fund of $1,500,000 which has accumulated during the past year, will be added a similar sum appropriated in the 1929 budget. While no plan for distributing the $3,000,000 has been devised, the school board intends to use the whole amount in readjusting the salary schedule of the teaching and supervising staffs. Some of the teachers' organizations have suggested that the board attempt to reestablish the repealed supermaximum rates as the normal maximum rates. It is expected that the various representatives of these organizations will be invited to present their suggestions to the board at a meeting to be held in the near future.

—The school board of North Judson-Wayne township, Ind., resolved that every child must present one of the following:

1. A certified statement of successful vaccination for smallpox within seven years previous, or

2. A physician's statement to the effect that the child is physically unfit for vaccination, or

3. A sworn statement from the parents that he (or she) objects to vaccination on principle.

—The board of education of New York City has expended approximately $109,498 for the purpose of remedying inadequate heating plants. The board recently awarded contracts for additional radiation in 22 school buildings.

The new heating equipment is intended for use in the corridors of school buildings. It was found that with the new system of heating and ventilating units in classrooms, there was insufficient heating in the corridors, and this could be remedied only with the installation of additional radiation.

—A recent report of Mr. H. Wallace Caldwell, president of the school board of Chicago, Ill., shows that there are seats for 498,842 pupils, or an increase of 11,160 in the eight new buildings occupied for the first time in September. There are 24,994 seats in portable buildings. The completion of the schools now under construction will bring the seating capacity to 507,402 by January 1. Mr. Caldwell points out that there is no serious seating problem since the number of portable buildings has been decreased from 900 to 675. The school board in the face of rapidly growing school districts is compelled to meet the classroom needs by establishing double-session classes and erecting portable buildings.

—Mr. B. C. Marks, president of the school board at Fargo, N. Dak., has intimated that the board will shortly be faced with the necessity of an extensive building program. For the present year, it is expected that the building fund will be limited to $20,000.

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A typical Roddis Flush Door for schools. Numbers or letters inlaid when desired.

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The Roddis principle of solid construction over the entire surface of the door has been time-tested and proved to give maximum resistance to the passage of sound and fire.

The core of Roddis Flush Doors is built of narrow, thoroughly seasoned softwood strips. These are planed smooth, fitted together and glued with waterproof glue. The solid, permanent unit thus formed provides an unchanging base for the veneers.

Hardwood strips protect all four edges of the softwood core from moisture. Cross band surface veneers cover both sides. The Roddis Flush Door is unconditionally guaranteed for two years. Write for details and literature.

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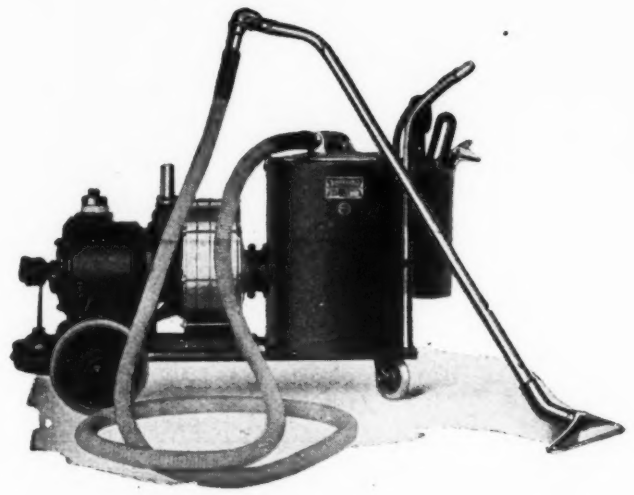

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ORGANIZATION OF THE BUSINESS AND PROPERTY DEPARTMENT AT SAN BERNARDINO, CALIF.

Mr. C. R. Holbrook, superintendent of schools at San Bernardino, Calif., in his biennial report for 1925-1927, gives a very interesting report of the organization and administration of the business and property department of the school system.

The business and property department, under the direction of Business Agent C. V. Kelty, has been unusually well organized and efficient. An extensive building program carried on by the board of education the past few years added a great deal to the burdens of the department, which required the employment of additional help.

The business agent has served as secretary, accountant, and financial adviser of the board of education. In these capacities during the biennium, he has not only been responsible for the expenditure of and accounting for approximately two million dollars, which has been expended in maintaining the schools and carrying on the building program, but he has counseled, advised, and assisted the board in wisely expending the taxpayers' money.

Other members of the department who have functioned unusually well in assisting the board of education are: The supervisor of construction, Mr. George Meyers; the supervisor of janitors and care of buildings and grounds, Mr. E. O. Ames; and the supply man, Mr. H. A. Walden. Mr. Walden's department is a model of organization and efficiency.

The efficiency of the department has been based upon the theory that consistent economy is a necessity in the school system, a definitely known policy of every school official. Wastefulness and carelessness in the purchase and use of supplies and equipment have been cut down to a minimum and the gospel of rigid economy has been forcefully presented to all. The director of the department has rendered eleven years of excellent service to the board of education. No better illustration could be cited of the advantages accruing to the board of education and the school system in maintaining continuity of efficient service in administrative positions.

The work of the department has consisted chiefly in:

1. Maintaining the necessary financial records.
2. Caring for all books, papers, and records of the board of education.
3. Keeping a record of the proceedings of the board.
4. Conducting the business correspondence of the board.
5. Making and serving all required notices.
6. Drawing and signing all warrants ordered by the board.
7. Purchasing and directing the storage and care of supplies and equipment.
8. Making contracts and checking specifications for all buildings, additions, and sites.
9. Oversight of all property of the board.
10. Maintaining inventories of all property and equipment.
11. Maintaining all grounds and buildings in proper condition for operating schools.

FINANCE AND TAXATION

—The collection of delinquent school taxes has become a serious problem in the Muhlenberg (near Laureldale, Pa.) township. The school board has ordered the filing of liens against all delinquent taxpayers. Of the 1926 levy $4,461 is in arrears.

—A $60,000 school-bond issue was lost by a narrow margin at Lower township, Wildwood, N. J. The proponents hold that the result does not reflect public sentiment on the subject of a new school and will resubmit the bond issue to the voters.

—Reydel, Ark. Suit has been brought in the court to restrain the county treasurer from paying out funds of School Dist. 34 for the erection of a school building to cost $10,000. In the suit, it was alleged that the school directors have no title to the land upon which the school is to be erected. It was also alleged that in the event the school building is erected on the property, it stands a chance to lose the building.

—St. Joseph, Mo. The executive committee of the citizens' advisory council has called a meeting to consider plans for the proposed school-bond issue. The first work of the committee will be to study the survey of the school buildings which has been prepared by the school officials.

—The school board of Hamilton, Ohio, has issued a call for bids on a $500,000 school-bond issue to be used in the purchase of sites for three new grade schools. A total of $1,500,000 will be expended on new schools within the next few years. The board has borrowed $600,000 to make possible the purchase of sites and receipt of bids for schools.

—North Olmsted, Ohio. The school board has asked the citizens to approve a bond issue of $295,000 at the coming November election. The proceeds of the bond issue will be used for the erection of a new junior-senior high school.

—Neosho, Mo. The board of education is planning a school-bond issue of $150,000, which is to be submitted to the voters at the spring election. The proceeds of the bond issue will be used to finance the erection of a high school and other school buildings.

—Wayland, Iowa. The citizens recently approved a $50,000 school-bond issue for the erection of a new school.

—Fort Worth, Tex. Supt. M. H. Moore has intimated that a new school-bond issue will be necessary within another year, despite the fact that the schoolhousing facilities have been enlarged during the past four years at a cost of $2,750,000.

A survey of the Worth Heights section is to be made to determine the school needs of the section for the next two years. It is proposed to begin an extensive survey of the entire school plant before any bond issue is requested.

—Ardmore, Okla. A bond issue of $135,000 has been approved by the assistant attorney general. The money is to be used for the erection of two school buildings.

—Schenectady, N. Y. The school board has asked the city council for an appropriation of $10,000 for the purchase of two portable buildings. The buildings will be used to eliminate part-time classes at the Woodlawn School which has become badly congested. It is expected that the building will be used for the next five years, or until a new school can be erected in this section.

—Mission, Tex. The citizens, on September 6, approved a bond issue of $60,000 for school-building purposes. In its publicity campaign, the school board limited its efforts to especially prepared articles in the local newspapers, in which the needs of the schools and the purposes of the bond issue were emphasized.

—Stamford, Tex. The board of education is receiving bids on a $65,000 bond issue, dated August 1, and maturing in forty years. The bonds bear 5 per cent interest and are payable semiannually. The board was offered a premium of $1,206 but is holding the sale in abeyance until a more satisfactory offer is received.

Theirs . . . *a remarkable record of attendance*

because the floor beneath their feet is warm, dry, resilient, clean

Tired little muscles—chilled little bodies—"colds" and absences—how often they are simply the result of damp, rigid, stone-like floors!

More and more, school board members are coming to realize the wisdom of flooring schools with the one flooring material that combines warm, dry, cushioning comfort with the qualities of lasting wear which school use demands. Northern Hard Maple!

This resilient flooring material is remarkably tough-fibred and tight-grained. It does not sliver or splinter. Scuffing, youthful feet and the moving of equipment simply make it smoother with time. Northern Hard Maple actually outwears stone!

Maple, moreover, because of its permanent smoothness, is exceptionally easy to keep clean. It offers no open lodging places for dust and germ-laden dirt to collect. And it permits quick, simple, permanent anchorage for seats.

Hundreds of school boards have been guided by these facts in selecting flooring. They have chosen Maple for schoolrooms, corridors, gymnasiums, assembly halls. Consult your architect about Northern Hard Maple.

Your retail lumber dealer can furnish **MFMA** Maple, Beech or Birch flooring, or he can get it for you.

Members of the Maple Flooring Manufacturers Association are:

Cobbs & Mitchell, Inc.	Cadillac, Mich.
Connor, R. Company	Marshfield, Wis.
Cummer-Diggins Company	Cadillac, Mich.
Flanner Company	Blackwell, Wis.
Foster-Latimer Lumber Co.	Mellen, Wis.
Holt Hardwood Company	Oconto, Wis.
Indiana Flooring Company, (Mill at Reed City, Mich.)	New York, N. Y.
Kneeland-Bigelow Company	Bay City, Mich.
Kneeland-McLurg Lumber Co.	Phillips, Wis.
Mitchell Brothers Company,	Cadillac, Mich.
Nichols & Cox Lumber Co.	Grand Rapids, Mich.
North Branch Flooring Co.	Chicago, Ill.
Northwestern Cooperage & Lumber Company	Gladstone, Mich.
Osgood & Blodgett Mfg. Co.	St. Paul, Minn.
Oval Wood Dish Corporation	Tupper Lake, N. Y.
Robbins Flooring Company	Rhinelander, Wis.
Sawyer Goodman Company	Marinette, Wis.
Soo Lumber Company	Glidden, Wis.
Stephenson, I. Co. Trustees	Wells, Mich.
Ward Brothers	Big Rapids, Mich.
Wells, J.W. Lumber Company,	Menominee, Mich.

Let our Service and Research Department assist you with your flooring problems. . . Write us.

MAPLE FLOORS IN COLOR—By a new special staining process—the Marietta-Murphy Finishing System—Northern Hard Maple Flooring may now be given a variety of beautiful, lasting color finishes. Standard finishes as follows:

EARLY AMERICAN	AUTUMN BROWN	DOVE GRAY	PASTEL GREEN	SEAL BLACK
SPANISH BROWN	SILVER GRAY	ROYAL BLUE	ORCHID	NATURAL

Write for free booklet, "The New Color Enchantment in Hard Maple Floors"

MAPLE FLOORING MANUFACTURERS ASSOCIATION
1780 McCormick Building, *Chicago, Illinois*

Guaranteed Floorings

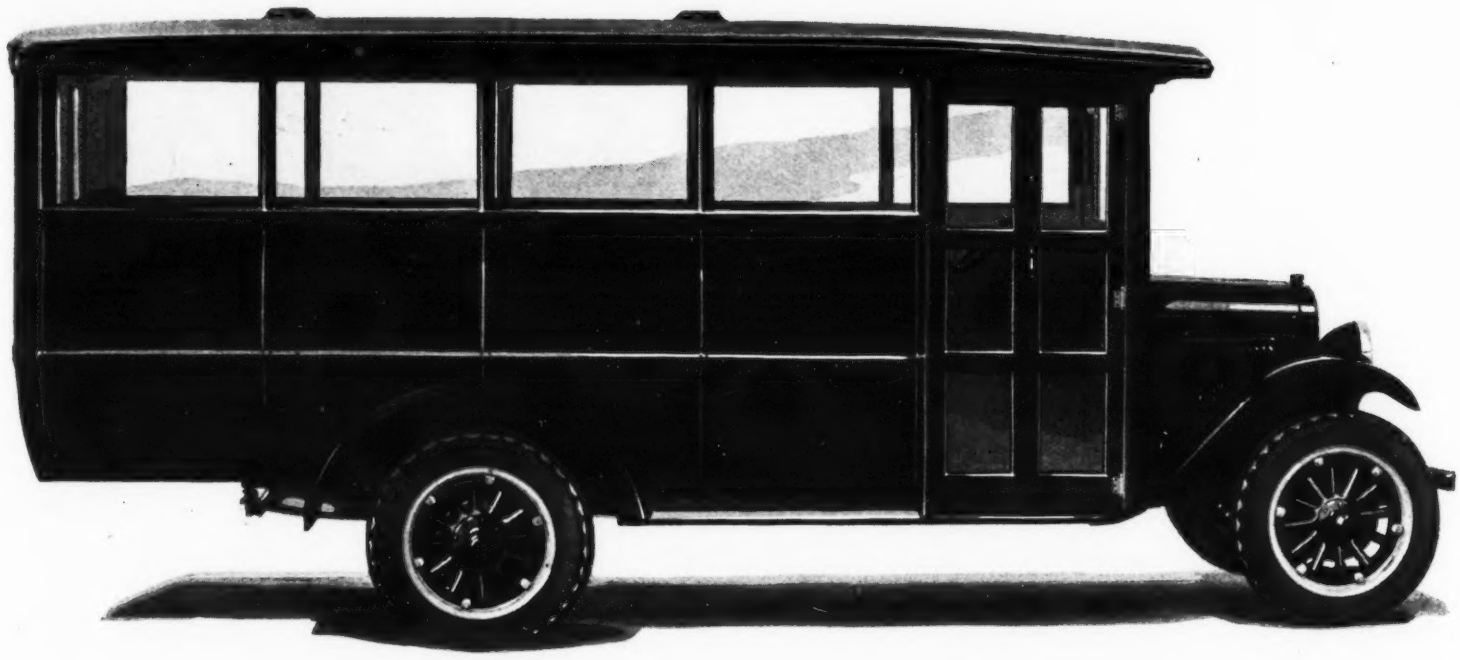
The letters **MFMA** on Maple, Beech or Birch flooring signify that the flooring is standardized and guaranteed by the Maple Flooring Manufacturers Association, whose members must attain and maintain the highest standards of manufacture and adhere to manufacturing and grading rules which economically conserve these remarkable woods. This trade-mark is for your protection. Look for it on the flooring you use. **MFMA**

Floor *with* Maple

for Economical Transportation

CHEVROLET

The Year's Greatest Truck Sensation



The World's Lowest Priced Truck With 4 Speeds Forward and 4-Wheel Brakes!

The tremendous success of the new Chevrolet Utility Truck in every section of the country has established it as the greatest commercial car sensation of the year!

Truck users in every line of business have hailed it as an outstanding achievement—for it offers every feature needed for modern transportation . . . at the lowest price ever placed on a truck with 4 speeds forward and 4-wheel brakes. And not only does it give you, to an amazing degree, those basic truck elements of power, speed, endurance, economy and handling ease—but it is also available with a body type designed especially for your business.

The UTILITY TRUCK

$520

(Chassis Only)

Light Delivery Chassis $375

f. o. b. Flint, Michigan

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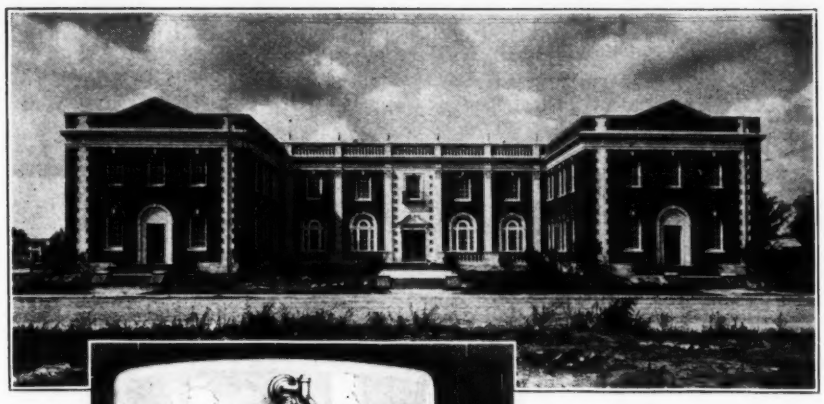
HALSEY TAYLOR
DRINKING FOUNTAINS



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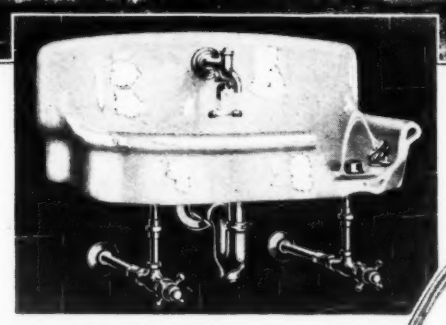

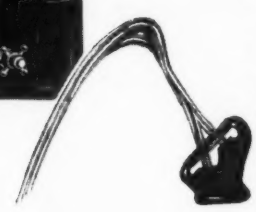

Automatic Stream Control

The stream is never too high, never too low, in a Halsey Taylor fountain, due to automatic stream control. Two-stream projector provides ideal drinking mound, a further guard against contamination. Patented features make Halsey Taylor fountains really PRACTICAL!

A Design to suit the need!

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Investigate—write for our specification manual!

The Halsey W. Taylor Co.
Warren, O.

Rules and Regulations for a Small High School

Upon the recommendation of Principal Hugh A. Hunter, the board of high-school trustees of the Live Oak, Calif., Union High School has adopted a set of rules and regulations for the conduct of its business. The rules and regulations are interesting in that they express some of the best principles of school administration and clearly define the policy-making duties of the board and the executive duties of the board. As a basis for the rules and regulations, the board of education has adopted the following code and a brief statement of the duties of the board:

Code

All children are entitled to equal educational opportunities in accordance with their individual abilities, hence it is the general policy of this board to give this community the most modern educational opportunities consistent with the amount of funds available. This board was not created as a means of granting special favors to friends, or to look after the routine of school management, but has in general three large functions:

1. To decide the general policy of this high school.
2. To select a skilled executive to carry out this policy.
3. To support him in so doing and judge the final results.

To this end each member of the board will work harmoniously with his fellow board members and the executive, giving unqualified loyalty to both and expecting the same in return.

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(Arranged in Order of Importance)

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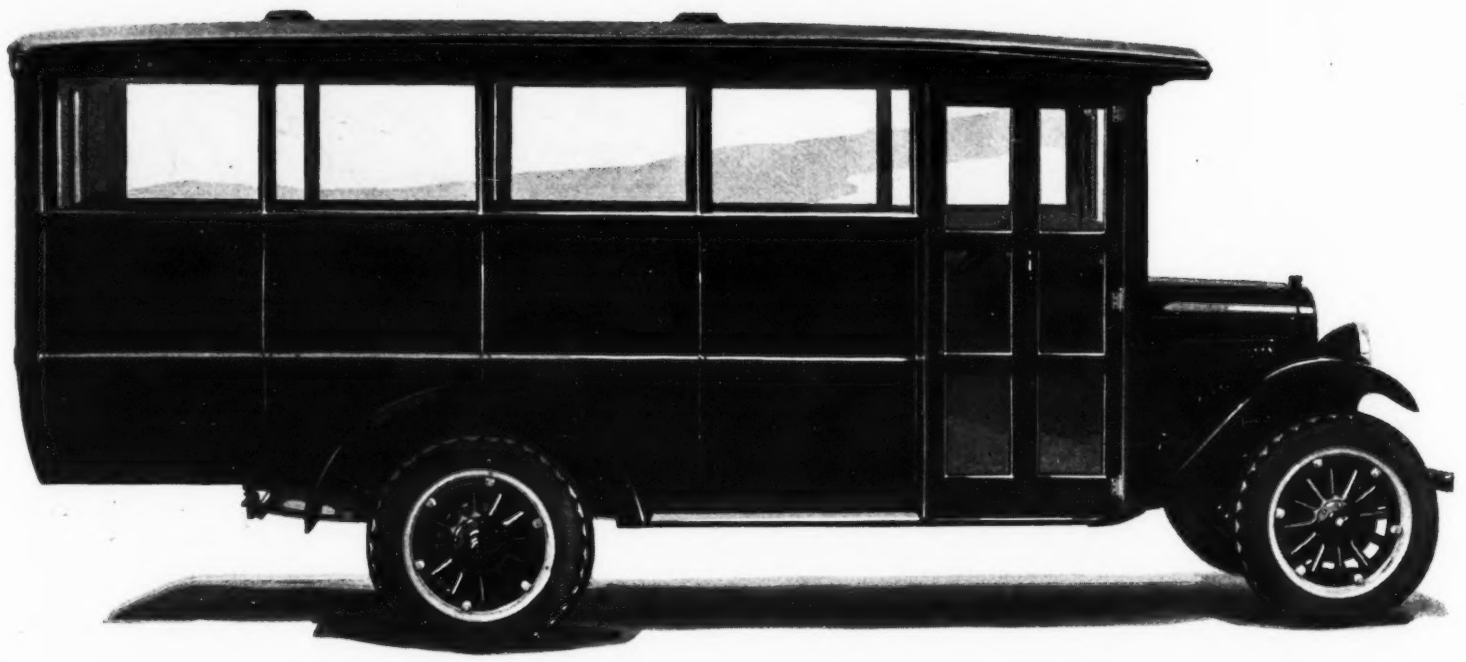

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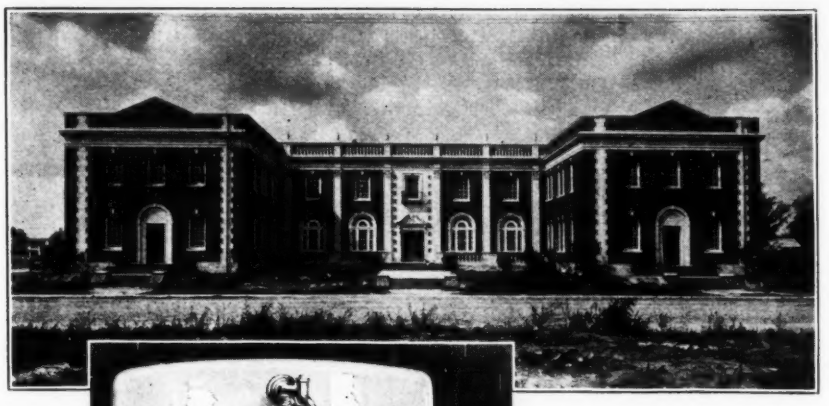

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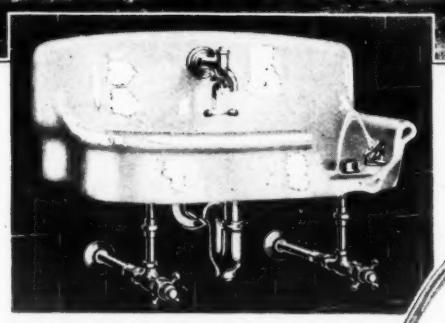

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"3R" cleaning will not do for modern equipment

HARSH powders, caustics, and plenty of scrubbing served the purpose when reading, 'riting, and 'rithmetic made up the school curriculum. Such drastic measures could do little harm to wooden floors and cast iron fixtures.

Today, however, with expensive modern equipment, and many schools boasting cafeterias, rest rooms, and shower rooms—monel metal, enamel, tile, and china fixtures and linoleum or composition covered floors must be kept clean by less strenuous methods. Injured surfaces mean high maintenance and replacement costs.

That is why hundreds of schools use Oakite methods wherever there is cleaning. ***Oakite works safely*** —with a minimum of hand scrubbing. Contains no abrasive, acid, lye, caustic, or soap—cannot injure the most highly polished surfaces. Yet, Oakite is thorough. Every bit of dirt and grease is quickly loosened and rinsed away completely. No slippery soap film remains.

Write for booklet "Oakite in Schools." It contains a money-saving suggestion for every school cleaning job. No obligation.

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OAKITE

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Industrial Cleaning Materials and Methods

Oakite Service Men, cleaning specialists, are located in the leading industrial centers of the United States and Canada.

ment of the rules and regulations of the board, and the duties prescribed by the state school law.

1. He shall prescribe the rules and regulations governing all teachers and other employees of the board.

2. He shall visit classrooms as often as his other duties will permit, and shall direct the supervision of instruction in these rooms.

3. He shall install a system of reports and records to be kept by the teachers.

4. He may expel or suspend any pupil for misconduct or violation of the rules, reporting such suspension or expulsion to the board at the next regular meeting, and shall recommend to the board what action shall be taken. He may reinstate any pupil when he deems it advisable.

5. He shall have general charge of the enforcement of the compulsory-attendance law.

6. He shall assign teachers to such corridor or yard duties as he may see fit.

7. He shall make such assignments of pupils to different grades and classes as may improve their classification and advancement, or reduce the expenses of maintaining the school.

8. He shall familiarize himself with these rules and regulations of the board and of the duties of teachers.

9. He shall appoint a teacher or teachers to maintain his duties and to maintain the proper discipline of the school when it shall be necessary for him to absent himself from school.

10. He shall conduct, or have conducted, a fire drill at least once a month, and shall have a well-drilled fire squad from the larger and more responsible boys. He shall inspect all buildings and closets to see that there are no accumulations from which fire may originate. He shall see that there is no accumulation of oiled rags, and so forth, that might result in spontaneous combustion.

11. He shall familiarize himself with the heating and ventilation system of the school plant.

12. He shall make all necessary state and county reports.

13. He shall draw up and submit for the approval of the board the course of study and the schedule of classes.

14. He shall see that all permanent records are kept in neat and permanent form.

15. He shall keep account in a systematic manner of all business transacted, drawing up all warrants and submitting the same for the approval of the board. He shall keep account of the final disposition of all warrants in a warrant register, and retain all bills for at least three years.

16. He shall nominate and recommend all teachers for election, reelection, promotion, or dismissal.

17. He shall report and incorporate in the school, with the sanction of the board, all well-tested improvements made in educational procedure, whereby this school shall be made more modern, efficient, and serve the community better.

18. In all cases of emergency he shall act as he deems the board would act were it in session.

VI. Teachers

1. All teachers are requested to familiarize themselves with the rules that relate to the school duties and with the provisions of the state law covering the duties of teachers and pupils.

2. Teachers shall report at least fifteen minutes before the opening of school in the morning, and shall remain on duty for a similar period after school.

3. Teachers shall be held responsible for the proper ventilation of their rooms. They shall also be responsible for the neatness, tidiness, and cleanliness of the room, reporting inefficient janitor work to the principal. They shall also report to the principal any defect in the building, furniture, and playground apparatus, which might prove injurious to the comfort and health of the pupils or of other persons.

4. Teachers shall not absent themselves from school at any time without the consent of the principal, except in case of sickness. In this case the principal may require doctor's certificates attesting to their physical fitness to teach before permitting them to return to work.

5. Teachers are required to attend all teachers' meetings called by those authorized to call such, unless excused for good reason.

6. Teachers shall not send pupils on errands outside of school grounds without permission from the principal.

7. Requisitions for supplies shall be filed on blanks provided for the purpose with the principal.

8. All teachers shall keep a record of attendance by periods.

9. Teachers shall make all reports and perform all clerical work outside of class hours.

10. Each teacher shall be responsible for the discipline of her own room under the general supervision of the principal.

11. Teachers shall give all directions to the janitor through the principal.

12. All teachers shall follow the principal's directions and cooperate with him not only during school hours, but during the time that pupils are on the school premises—before and after school, during the noon hour, and during student activities of any sort at any time.

13. Teachers are expected to show interest in school and community activities.

VII. Janitor

1. The janitor shall be under the supervision of the principal and subject to his orders and shall not assume or exercise any authority over pupils except by special order, but shall report any violation of the rules by pupils to the principal.

2. The janitor shall be responsible for keeping the building and surroundings clean, neat, and in a sanitary condition, and for making minor repairs.

3. The janitor shall see to it that corridors and fire escapes are kept free from obstruction, and shall eliminate all possible fire risks, and shall report to the principal all things about building or grounds which he may notice as needing attention.

4. The janitor shall be responsible for the display of the flag daily when the school is in session and on all holidays. A flag shall not be displayed during inclement weather.

VIII. Absence from Duty

1. The principal or teacher failing to render service due to his or her illness, is entitled to a sick benefit of not over five days per year.

IX. General Regulations

1. *State textbooks.* All teachers and the principal shall make constant inspection of state textbooks to prevent unnecessary destruction. Pupils should be prohibited from writing, marking, or in any way defacing these texts. These instructions also apply to all other books in addition to state textbooks.

2. *Public-library books.* Great care shall be exercised by teachers to see that all public-library property is well cared for, and that the pupils be instructed regarding the care and use of this property.

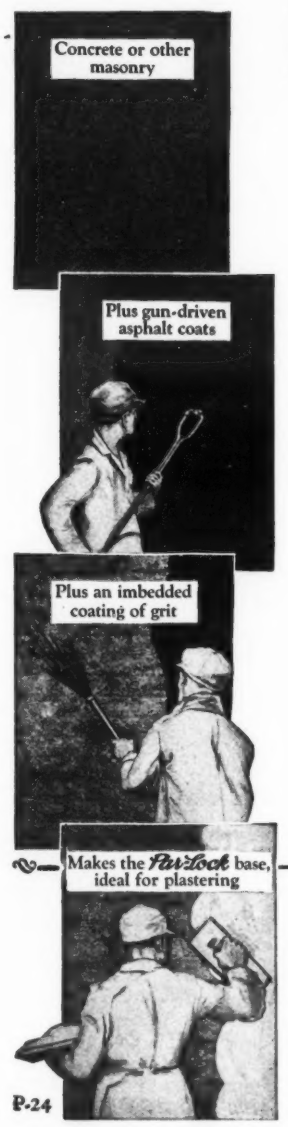
3. *Holidays.* On the following holidays school shall be closed: Saturdays, Sundays, January 1, May 30, July 4, September 9, November 11, December 25, and every other day declared by the president of the United States or the governor of this state for a public feast, thanksgiving, or holiday. School shall continue in session on all other legal

(Concluded on Page 128)

The Union Central Life Building Annex

Third & Vine Streets, Cincinnati, Ohio

Architects, Garber & Woodward
General Contractor, The Ferro Concrete Construction Co.
Par-Lock Applied by the Par-Lock Appliers of Columbus.


Concrete or other masonry
Plus gun-driven asphalt coats
Plus an imbedded coating of grit
Makes the Par-Lock base, ideal for plastering
P-24

Efficient Protection for Fine Interiors

THE splendid Union Central Life Building, Cincinnati, Ohio, has a recently completed Annex, of striking design and a model of good construction. Par-Lock Plaster Key was employed on all ceiling slabs, columns and beams, except where finished for acoustical effect.

Par-Lock is applied in accordance with a variety of specifications for a wide range of uses. Essentially, it is a Plaster Key that protects the plaster against moisture, stain or cleavage originating from causes within the structural surface. It is also invaluable in a wide range of damp-proofing and water-proofing operations. Applied only by responsible Par-Lock Appliers, this treatment assures uniformly efficient interior protection.

THE VORTEX MANUFACTURING CO., *1987 W. 77th St.*, CLEVELAND, O.

Par-Lock
PLASTER KEY

PAR-LOCK APPLIERS

ALBANY,
425 Orange Street
ATLANTA
Bona Allen Building
BALTIMORE,
613 West Cross Street
BOSTON,
45 Commercial Wharf
BUFFALO,
958 Ellicott Square Bldg.
CHICAGO,
111 West Monroe Street
CLEVELAND,
218 Hunkin-Conkey Bldg.
COLUMBUS,
751 South Cassingham Rd.
DETROIT,
2544 First National Bldg.
KANSAS CITY, MO.
2035 East 19th Street
MINNEAPOLIS,
434 Builders Exchange
NEWARK, N. J.,
24 Commerce Street
NEW YORK CITY,
50 Church Street
PHILADELPHIA,
1700 Walnut Street
PITTSBURGH,
614 Bessemer Building
SCRANTON, PENNA.
Cedar Avenue
ST. LOUIS
1011 Telephone Building
TORONTO,
2258a Bloor Street, West
TRENTON,
339 Broad St. Bank Bldg.
YOUNGSTOWN,
503 City Bank Building
WILKES-BARRE, PA.
904 Second Nat'l Bank Building
PAR-LOCK CORK INSTALLATIONS
United Cork Companies
Lyndhurst, N. J.

The School Census at Des Moines

Prudence Nicholas, Clerk of Publications, Des Moines, Iowa

An efficient and comprehensive school-census report was submitted to the board of education of the Des Moines public schools at the regular meeting held the third Tuesday in July. This report, although it contains the routine items required in such an enumeration, involved a number of unusually effective methods of procedure, resulting in an increase of 464 children within the age limits of the census over the record of a year ago. Miss May Goodrell, director of the department of attendance and employment, had charge of the enumeration.

The Iowa school law calls for an annual counting of the children between the ages of 5 and 21. The state of Iowa pays into the school treasury of each city or community about $2 per pupil recorded, thus making an accurate count a much-desired achievement.

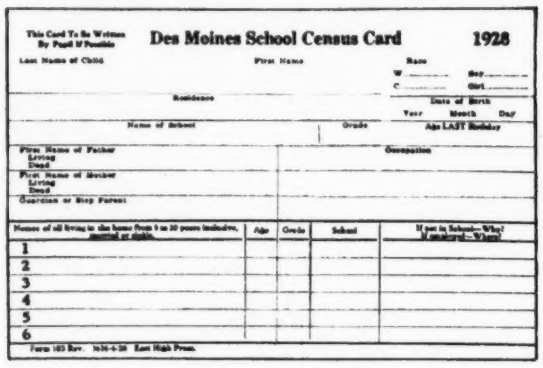
Prior to the close of school in June, each child old enough to write, filled out a Des Moines school-census card on which were included the names of all persons between the stated ages who lived in his home, regardless of whether they were his own brothers and sisters or not. This brought in many names of children and young persons who might have been missed through some other process of enumeration.

Immediately after the close of school, a corps of teachers were employed to canvass the entire city, each teacher working in territory in which she taught. This report was made on Census Card 1928, Family Record A, and included data concerning the literacy of parents, nationality, records of mentally or physically defective children, as well as the regulation listing of all children in the house who came under the age limitations.

All cards not returned by a certain date were brought in by the workers who districted the town and made a businesslike search for the missing records.

Then came the tremendous task of sorting out the duplicates. Afterwards, the records were compiled as to age, grade, public schools, parochial schools, private schools, institutions, colleges, and universities, not employed and not enrolled, employed, and by color.

The compulsory-education law of Iowa requires that all children between the ages of 14 and 16 not enrolled in regular schools, must attend a continuation school. The only exceptions are for mentally and physically disabled. Data for the enforcement of this clause was gleaned from the census cards. Lists of all children of the ages stated were prepared and grouped according to the schools they expected to attend in September. In the fall, teachers will report to the central office, all children between 14 and 16 years of age who have failed to return to school. The newspapers will assist



Des Moines School Census Card 1928

This Card To Be Written By Pupil If Possible

Last Name of Child | First Name | Race W C | Sex Boy Girl

Residence | Date of Birth Year Month Day

Name of School | Grade | Age LAST Birthday

First Name of Father Living Dead | Occupation

First Name of Mother Living Dead

Guardian or Step Parent

Names of all living in the home from 5 to 20 years inclusive, married or single.	Age	Grade	School	If not in School—Why? If employed—Where?
1				
2				
3				
4				
5				
6				

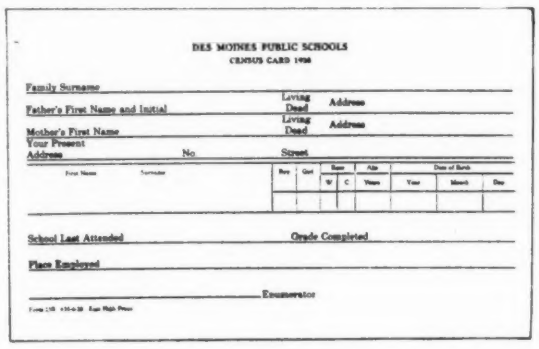
Form 103 Rev. 10M-6-28 East High Press

PUPILS' RECORD

in urging employers and parents to enroll the children of these ages in the continuation school, stating the penalty for neglect of this duty.

After a check of these lists, the workers in the attendance and employment department will make the rounds to see that all children not reported are enrolled at once.

At the close of the census campaign, Miss Goodrell was able to testify to the board of education, that she had no knowledge of any pupil of compulsory school age in Des Moines, who was not attending a public, a private, a parochial, or a continuation school, unless mentally or physically disabled.



DES MOINES PUBLIC SCHOOLS

CENSUS CARD 1928

Family Surname

Father's First Name and Initial | Living Dead | Address

Mother's First Name | Living Dead | Address

Your Present Address No. Street

First Name | Surname | Rec | Girl | Race W C | Age Years | Date of Birth Year Month Day

School Last Attended | Grade Completed

Place Employed

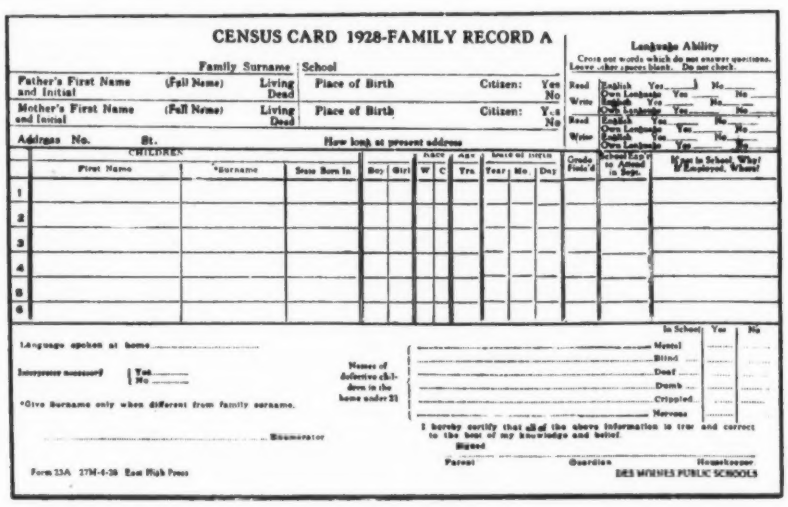
Enumerator

Form 23B 10M-6-28 East High Press

EMPLOYEES' CENSUS CARD

At the same time a third card, printed on blue stock to distinguish it from the other cards, was distributed by enumerators in all business houses, institutions, hospitals, and summer schools of any type. This business-census card caught a total of 2,153 persons whose names were not reported to census takers in any other way.

If an enumerator was unable to find the parents at home, a printed postal card was left with these instructions on how it should be filled out and mailed. The stubs from these cards were filed in the central office. Newspaper publicity was used to urge holders of these cards to mail them immediately with the reasons definitely set forth.



CENSUS CARD 1928-FAMILY RECORD A

Family Surname | School

Father's First Name and Initial (Full Name) Living Dead | Place of Birth | Citizen: Yes No

Mother's First Name and Initial (Full Name) Living Dead | Place of Birth | Citizen: Yes No

Address No. St. How long at present address

Language Ability

CHILDREN

	First Name	*Surname	State Born In	Boy	Girl	Race W	Race C	Age Yrs.	Date of Birth Year	Mo.	Day	Grade Finished	School Expected to Attend in Sept.	If not in School, Why? If Employed, Where?
1														
2														
3														
4														
5														
6														

Language spoken at home

Interpreter necessary? Yes No

*Give Surname only when different from family surname.

Names of defective children in the home under 21

In School Yes No

Mental

Blind

Deaf

Dumb

Crippled

Nervous

I hereby certify that all of the above information is true and correct to the best of my knowledge and belief.

Signed

Parent Guardian Housekeeper

Enumerator

Form 23A 27M-6-28 East High Press

DES MOINES PUBLIC SCHOOLS

FAMILY RECORD CENSUS CARD

TO BEGIN VENTILATION TESTS IN NEW YORK SCHOOLS THIS FALL

Definite plans for a scientific study to determine the effect of various types of ventilating units upon the health and classwork of pupils attending the New York City schools have been announced recently by the board of education.

The New York Commission on Ventilation, under the direction of the Milbank Memorial Fund, has asked the permission of the school authorities to conduct an experiment in ventilation in four school buildings. In conducting the study, the commission will receive the cooperation of Superintendent of School Buildings Walter C. Martin and Superintendent of Plant Operation Robert W. Rodman.

Four schools have been selected for the study, which include Public School 116, Manhattan; Public School 104, Manhattan; also, two other schools which are to be selected later. In the sixteen rooms of Public School 116, a comparison will be made of the effects on the health of children of the present univent system, working at a normal rate of 30 cu. ft. of air per child per minute, and the univent system working at a reduced rate of 15 cu. ft. per minute and window gravity ventilation. The same experiments will be carried on in the other schools.

In conducting these studies, the commission agrees to assume the responsibility for all changes and necessary installations, and for the restoration of the classrooms to their condition previous to the experiment.

In approving the studies to be made by the commission, the school authorities have expressed the belief that the results of the study would prove of great value in planning the ventilation of new buildings to be erected.

HYGIENE AND SANITATION

—Four clinics were conducted in Oconto county, Wis., for the examination of preschool children. The work was carried on under the direction of S. V. Wilson, county superintendent, Miss Gertrude Kehl, county nurse, and Dr. R. L. Frisby, deputy state health commissioner.

"The work of Wisconsin public health nurses has shown that when many children enter school they have already developed physical defects which affect their schoolwork," said Miss Kehl, in commenting on plans for the clinic. "We are, therefore, taking this opportunity of discovering physical defects in the child before his first year of schoolwork begins. The prevention of disease is always easier than its cure."

—The school board of Muhlenberg township (near Laureldale, Pa.) ordered that all children be vaccinated before being admitted to the fall term of school.

—The Midland, Pa., school board has employed Mrs. James Jackson, a Red Cross nurse, as school nurse.

—Twenty-five hospitals and a dozen railroads in Georgia have responded to an appeal of the state health commissioner, promising reduced rates to rural school children in need of medical care. The children will be taken to the nearest hospital where they will be given expert medical and nursing care.

—The department of public health of Philadelphia, Pa., assisted by the health agencies and other organizations of the city, recently conducted a campaign against diphtheria. The members of the staff of the health department did the inoculating, using seventy public and eight parochial schools as the centers for the work.

In the publicity campaign which preceded the actual work, public-utility and life-insurance companies aided in the work of distributing posters and circulars explaining the purpose of the campaign. The motion-picture theaters also displayed a proclamation of the mayor urging parents to have their children immunized against this disease.

—Ambridge, Pa. A medical examination of all preschool children was held recently.

—The members of the La Salle, Ill., school board, together with Dr. Arlington Ailes, health officer and J. B. McManus, superintendent, viewed the operation of the newly instituted "fresh-air rooms." These rooms are intended for children who are physically subnormal.

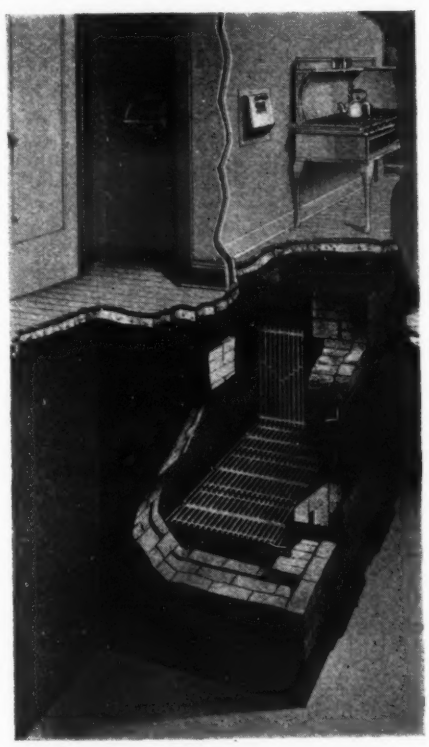
—The school board of Hamilton, Ohio, reappointed Dr. John A. Burnett, school physician at a salary of $2,500 a year. Dr. E. R. Hall was chosen as school dentist at $1,000 a year.

—A recent report of the superintendent of schools at San Francisco, Calif., gave the results of a hearing survey in the schools up to June 17, 1927. The report, which was printed in a bulletin of the San Diego County Medical Society, showed that 8.7 per cent of the total number of children tested had a loss of nine or more sensation points in one or both ears, and 1.6 per cent of the total number tested had sufficient impairment of hearing to necessitate a study of lip reading. The otologist of the board of health has reported that 83 per cent of the cases of defective hearing noted are remediable if treated in time, leaving 17 per cent for which little can be

(Concluded on Page 100)

Here's What Kernerator Assures

1. Overcomes the chief cause of 75% of school fires through trash piles in the basement.
2. Banishes the trucking of waste paper and sweepings to the basement.
3. Entirely does away with the expense of buying, cleaning, and replacing of garbage cans.
4. Provides for instant disposal of refuse from cafe and cafeteria.
5. Makes it unnecessary for foul-smelling garbage wagons to call for garbage.
6. Provides more sanitary surroundings, and greater health assurance.
7. Costs nothing to operate or maintain—requires no fuel—an occasional match burns the waste and air-dried garbage.

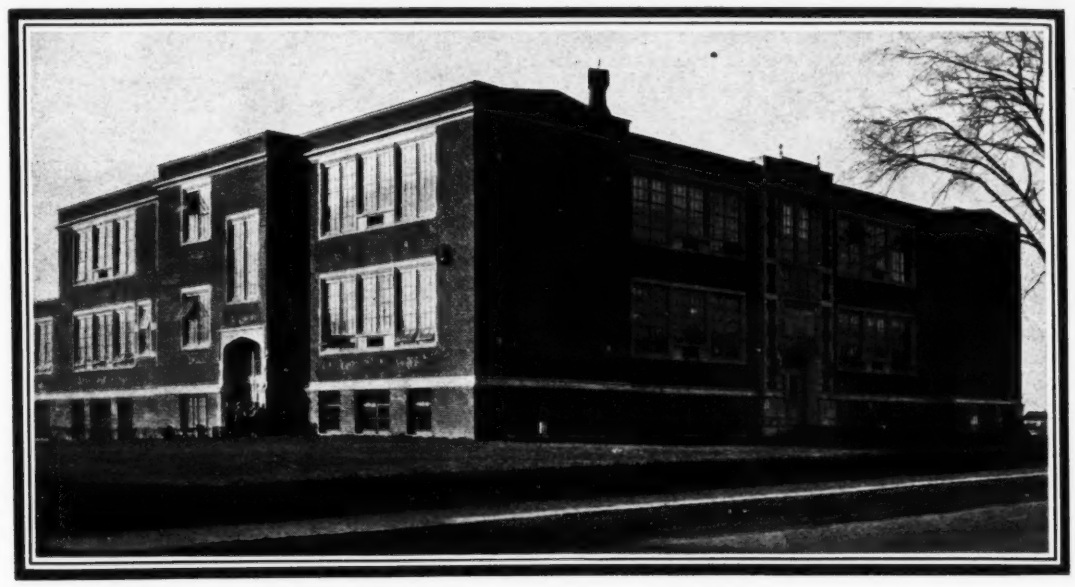


What Is the Kernerator

The Kernerator consists of a brick combustion chamber, with fire brick lining, located in the basement of the building at the base of the chimney. It is constructed when the building is erected, in accordance with clear, detailed working drawings.

Into this incinerating chamber is built a special arrangement of grates of heavy design with patented by-pass flue to provide proper draft control to insure complete, successful, and odorless combustion of garbage and waste.

Receiving hopper doors are built in the flue, usually located in the wall of service rooms, common corridors, or at some other point easily reached on each floor. The flue serves as a fall way for garbage and waste deposited in the hopper doors, and also as a chimney to carry off the products of combustion during burnings.



"A great aid in sanitation"

says the Principal of Nathan Hale School

PRESENT day school authorities regard sanitation as one of the major considerations when school buildings are being erected. They know that filthy, germ-breeding garbage cans and unsightly, insanitary trash heaps have no place in the modern institution.

The Nathan Hale Grade School of New Haven, Connecticut, is one of the many schools throughout the country that have solved the problem in a most gratifying and economical manner with the Kernerator. Miss Bessie J. Rattelsdorfer, Principal, writes: "The Kernerator has been in use in the Nathan Hale Grade School for several years and has proved satisfactory in every way. It is convenient as well as a great aid in sanitation."

Garbage, papers, sweepings, and trash of all kinds are simply dropped through handy hoppers on floors above and fall to the brick combustion chamber in the basement. The accumulation becomes quickly air-dried and is destroyed with an occasional match—no fuel is required.

There are Kernerator school models as low as $250 and the masonry adds but little more when the regular chimney is used. Send for our new illustrated school book which gives valuable information on uses and installation of Kernerator.

KERNER INCINERATOR COMPANY

733 E. Water St. **Milwaukee, Wis.**

KERNERATOR

REG. U.S. PAT OFF

THE CHIMNEY-FED INCINERATOR

Garbage and Waste Disposal

Instant, Sanitary, Costless

A Handsome Example of Sanymetal Flush Panel Toilet

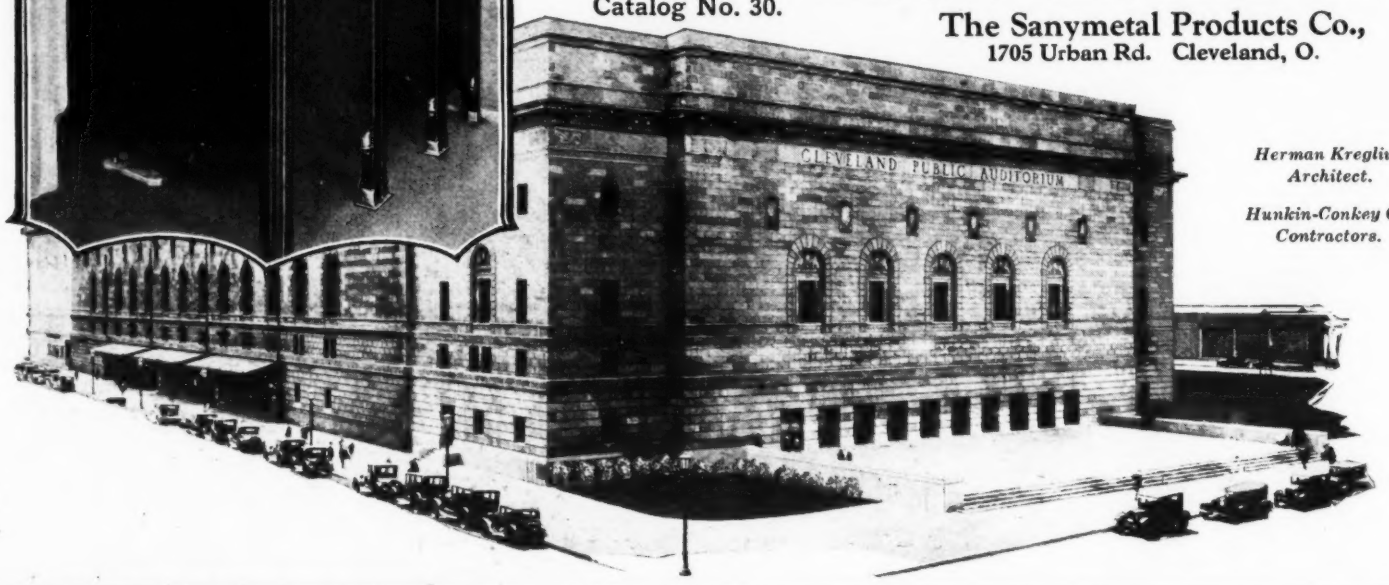
TRADE MARK U S REG

Partitions Just Installed in Cleveland's Fine Public Auditorium

SIGNIFICANT indeed, is the fact that for several installations in this, one of the country's largest and best-equipped municipal auditoriums, Sanymetal Flush Type Toilet Partitions were chosen.

Naturally, only toilet partitions of the nearest approach to permanence would be suitable for installation in a civic institution that will be enjoyed by many future generations. The compliment to Sanymetal's enduring quality is plainly indicated. Write for Catalog No. 30.

The Sanymetal Products Co.,
1705 Urban Rd. Cleveland, O.



Herman Kreglius Architect.

Hunkin-Conkey Co. Contractors.

done and for which the educational system must provide special training.

—As a preparation for children entering school in September, a number of child-health conferences were held during the summer throughout the state of Maryland. Under the auspices of the state health department, parents of school children were urged to have them examined as to height, weight, teeth, throat, vision, and hearing. Few in a total of 2,100 children examined made a perfect score; 1,825 of them were in need of some special care; the teeth of 1,188 needed attention; 859 had enlarged or infected tonsils; 305 had adenoids; and 161 were mouth breathers. There were 37 children with defective vision. Only about 13 in every 100 children were 100 per cent healthy.

EVANSVILLE SCHOOL BOARD ADOPTS RULES GOVERNING CONTAGIOUS DISEASES

The school board of Evansville, Ind., with the cooperation of the state board of health, the American Child Health Association, and the U. S. Bureau of Health, has compiled and issued new rules governing contagious diseases in the schools. The rules indicate the responsibility of the school and home in preventing the spread of contagious diseases, and outline the disinfection procedure and general preventive measures to be carried out in combating the spread of contagious diseases.

1. *The Responsibility of the Principal.*

a) The principal should take at any time such *immediate* steps as he thinks are necessary to protect the health of the children. He should report to the superintendent's office what he has done, only if his action has not been authorized previously. This gives the principal a freedom of action commensurate with his responsibility.

b) On the receipt of authentic information from any source that a pupil is ill in school with a contagious disease, he should *immediately* proceed with disinfection as described in paragraph 4. If the child was not ill in the school it will not be necessary to disinfect, unless the chief of the school medical staff orders disinfection.

c) The principal (or the clerk) should give *immediate* notice to the city board of health office of any case of contagious illness, either certain or suspected. The names and addresses of all children absent two consecutive days should be *immediately* reported to the board of health when the principal has any doubt about the cause of the absence.

2. *The Responsibility of the Teacher.*

a) The teacher should *immediately* send home any child with marked symptoms of illness. It is not necessary for the teacher to consult anyone, if she suspects a case of contagious disease. The regular school exclusion notice should be used and a copy sent to the principal. Immediate isolation of suspected cases of contagious illness is the aim.

b) Children known to have had contagious disease should not be readmitted to the class without a certicate from the attending physician, or from the board of health.

3. *The Responsibility of the Home.*

a) Give *immediate* notice to the school of contagious disease.

b) Do not send a sick child to school.

4. *Disinfection Procedure.*

a) All fumigation is to be abandoned, as an ineffective practice no longer used in progressive communities.

b) Open all windows in the home room of the sick child, and keep them open for nine hours, or one full day.

c) Scrub thoroughly with plenty of hot water and soap all desks, door knobs and stair rails in the building that were used by the sick child; scrub the floor of the home room of the sick child; also scrub all window ledges and blackboard ledges in that room.

d) The child's books and desk are to be sterilized in dry heat at 200 degrees for at least an hour.

e) The work of disinfection must be supervised by the principal. Any parent, or other interested person, is welcome to observe and inspect the disinfection.

f) The pupils dismissed from the room requiring disinfection will remain dismissed until the disinfection of the room has been entirely completed.

5. *General Preventive Measures.*

a) Get as much sunlight as possible into the rooms, consistent with eye health.

b) Rooms should be regularly flushed with fresh air, at least once during the morning session and once during the afternoon session. The windows should be opened as far as possible to get the maximum of fresh air. Open-window rooms cure sick children; they benefit well children.

A REPORT OF THE ANNUAL FINANCIAL EXPENDITURES AT EASTON, PA.

A very suggestive report of the annual financial expenditures for the year ending July, 1928, has been issued by Mr. R. E. Peifer, secretary of the board of education at Easton, Pa. The report shows total receipts amounting to $951,047, and total expenditures amounting to $839,533, leaving a balance of $11,514 in the school treasury.

Of the total amount expended, $31,325 was for general control; $469,732 for instruction; $36,335 for auxiliary agencies for secondary activities; $31,034 for maintenance; $28,050 for fixed charges; $216,847 for debt service; $73,442 for operation; and $52,763 for capital outlay.

CHATS DURING RECESS

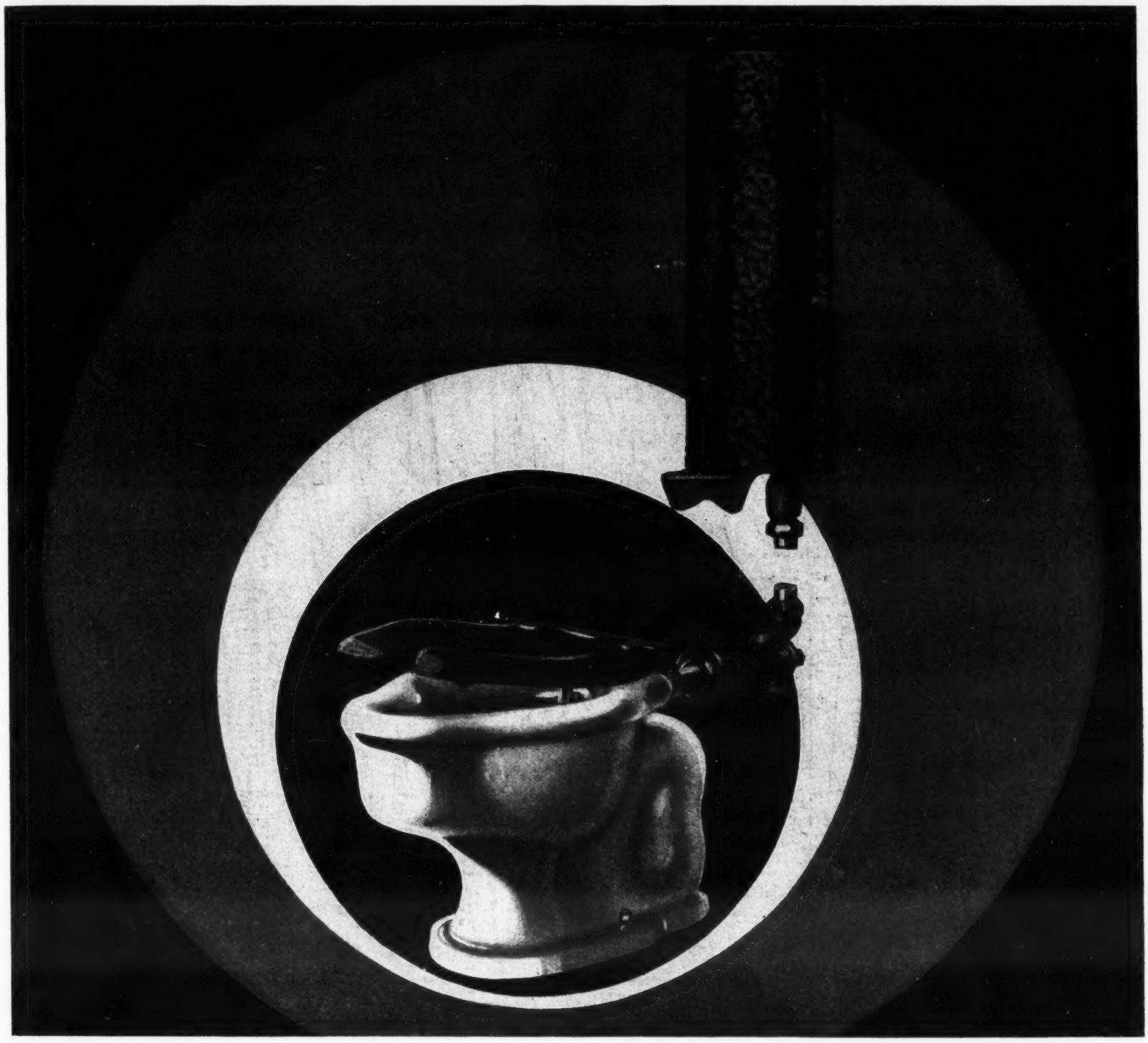
—The Jackson, Mich., Star asks: "Is the school board mad, or public foolish?" and then says:

"The board of education is to present the question of abandoning the special charter under which the Jackson schools operate, placing them instead under the general school laws of the state. It will be voted upon at the school election. It should be buried so deep that Gabriel's trumpet would sound like a mother's slumber song to her weary child.

"If the voters sanction the change they will never be sorry but once—and that will be all the time. They will be surrendering the one solitary safeguard over the schools now in their possession, for the existing charter makes it compulsory for the school board to get first the voter's consent before issuing bonds, or contracting certain debts.

"The chief virtue of the general school law is that it gives school boards power to issue bonds at will, without referring the matter to the voters. Also the board can sell property, purchase it and run in debt for it, all without the voter having any voice in the transaction."

—News Item. Call, Monnessey, Pa. Politics in its most personal, partisan, and virulent form has entered the inner workings of the local school board, until a situation now confronts the citizens approaching inactivity and inefficiency. By the resignation of J. W. Cadwallader as president of that body, the understanding that he should be chosen janitor of the Tenth street building in the third ward, there remained six members only, who have become deadlocked upon every movement attempted either to fill the vacancy or to choose a new president.



A Style for Every Need . . . . . .
Each with Over-Heavy Bowl. . . .
The Simple Madden Valve. . . . .
And Clow Sure-Scouring Action

THERE are more than 48 styles and sizes of Clow Madden Automatics. No other closet approaches them for completeness.

All Clow Madden Automatics carry the extra heavy Adamantose bowl—weighing as high as 60 pounds—far heavier and stronger than the average. Moreover, this twice-fired Adamantose ware absorbs no stains, shows no cracks or checks.

The heart of any closet is the valve. The Madden Valve has no weights or contraptions. It can't forget to flush. When the seat is down the closed top tank fills—when the seat raises with the user—the Madden Valve lets loose a cleansing flood of water.

And, because of the well-designed bowl interior, every part from rim to trap receives an equally high pressure flush.

Clow Madden Automatics guard health, guard costs, as no other closet can.

James B. Clow & Sons, 201-299 N. Talman Avenue, Chicago

CLOW MADDEN AUTOMATIC

Forty-Eight Styles, Heights and Types to Meet Your Requirements

DUNHAM HEATING

An open letter from the president of C. A. Dunham Co.

OUR National business has become international. Under corporate powers vested in several companies, the latest of these is the C. A. DUNHAM COMPANY, LTD., of London, England.

There are at present more than eighty offices in the United States, Canada and Great Britain, and in addition thereto, there are several agencies in other parts of the World. This forms an active background for the Dunham Differential Vacuum Heating System.

An Organization of Specialists

Certain well defined territory boundaries surround each company office, and all installations are the fixed responsibility of the managing engineer in whose territory these systems may be located.

In each office there are from one to ten members—one or more of whom have engineering training, qualifying them to advise on the proper application of this new heating method.

Its Value Has Been Proved

There is no mistake about the value of heating buildings with low temperature steam which may be varied to meet the needed output to balance the heat loss. Mr. Apple, Superintendent of the Barlum Tower, Detroit, states that the season's cost of heating that forty-story building with this system, was $0.292 per square foot of radiation. The season started September 12, 1927, and ended June 5, 1928; it was a green building and had all the usual handicaps of foreign matter to clear, which invariably attends the first year of any installation. Steam costs were $1.00 per 1000 pounds.

Chicago apartment buildings show greater savings the second season than for the first, with a radiation operating cost per square foot as low as $0.212 for the full heating period just passed using coal as fuel.

We have records on file of installations in and between Quebec, Canada, and Dallas, Texas; between Rhode Island and Oregon, each reflecting variables in fuel conditions and weather changes. Reports from every installation which was in operation during any portion of the winter, have been uniformly satisfactory and with fuel saving established beyond our most sanguine expectations.

A Most Important Development

Our own engineers, who have been so closely identified with me in this development, admittedly agree that for useful results wherever artificial heat is needed, this system numbers with the most important developments of the present day.

A mere statement that the Differential System properly installed and operated can accomplish the remarkable fuel saving claims, sounds bombastic without the evidence, but it is true—we have the evidence and the proof that the Dunham Differential System will save 25% (or more) of fuel over the standard vacuum return line system in general use today.

C. A. Dunham

C. A. DUNHAM CO.
450 EAST OHIO STREET

Dunham Building
CHICAGO, ILLINOIS

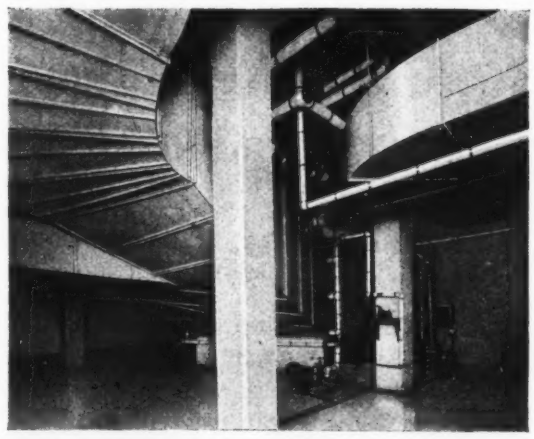
Overbrook Senior High School, Philadelphia, Pa.

—the little red school house

Many, many years ago when grandmother attended school the only known method of heating and ventilating the school was a big iron stove and an open window.

Times have changed and the "little red schoolhouse" has now become a National Institution having modern heating and ventilating equipment.

"Buffalo-Carrier" central heating and ventilating systems are successfully providing pure washed air, properly tempered and humidified, to hundreds of America's finest schools.



Inside view showing one of the four "Buffalo" Washers installed

"Buffalo-Carrier" Air Washers and Conoidal Fans deliver 14,352,000 cubic feet of washed and cleaned air into this school every hour.

Complete particulars sent on request.

BUFFALO FORGE CO.

186 Mortimer St. Buffalo, N. Y

IN CANADA
Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

How to deal with the "wear places" in your school

SOME parts of a school building are more vulnerable than others. Walls get dirty. Ceilings become drab. Cement floors kick up dust. Crumbling occurs around staircase landings and in hallways. Toilet floors deteriorate and become unsanitary. Wood floors splinter, crack or rot.

SONNEBORN SCHOOL PRESERVATIVE PRODUCTS

are designed to stop just such deterioration and to renew the appearance and strength of these hard-worked spots.

Floors that last

When a concrete floor dusts, it is a danger signal that the need for repairs is near, and concrete dust is unhealthful to your pupils.

Your concrete floors can be made dustproof and wearproof by an application of Lapidolith—a liquid chemical hardener that penetrates concrete and binds the loose particles together by chemical action. A Lapidolized floor has a surface that wears like flint.

If your floors are of wood, an application of Lignophol will keep them from rotting, splintering and drying out. Lignophol is a penetrating preservative that impregnates the wood with natural wood gums and oils. Restores life in the floor.

Paint with Cemcoat Repaint with water

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PERSONAL NOTES OF SUPERINTENDENTS

—H. G. Dietrich, superintendent of Bexley, a suburb of Columbus, Ohio, recently addressed the Rotarians at Ashtabula, Ohio. He was formerly superintendent at Ashtabula.

—A reception was accorded to Superintendent-elect James J. Hagan of Rock Island, Ill. He succeeds R. W. Bardwell, who has accepted the superintendency at Madison, Wis.

—Principal Calvin Afflerbach of the school system of Delaware addressed the Kiwanis Club of Sellersville, Pa., recently. He described the school system of Delaware and the contribution made by the du-Pont interests in the way of school buildings.

—Norman Kaster was chosen superintendent of the Baldwin, Iowa, independent school district.

—Mr. Walter B. Munson has been elected assistant superintendent of schools at Fresno, Calif., to succeed Mr. O. S. Hubbard, who became superintendent of schools during the past summer.

—Supt. Earl C. Van Dusen of Little Falls, Minn., has been reelected for a third term at a substantial increase in salary.

—Mr. Paul B. Jacobson of Milaca, Minn., has been elected principal of the junior-senior high school at Little Falls.

—Mr. Harvey U. Reiter of Little Rock, Iowa, has assumed the superintendency at Lake Park, Iowa.

—Superintendent of Schools J. R. Fausey of West Springfield, Mass., gave two courses at the University of New Hampshire summer school this summer, one on educational administration and supervision, and one on educational measurement and statistics.

—Mr. Charles W. Hobbs, a member of the school board and a former principal at Swampscott, Mass., died at his home after an attack of heart failure.

Mr. Hobbs was born in Salem and was graduated from Harvard University in 1897. In May, 1915, he was elected principal of the high school, and in February, 1927, he was appointed to the school board for a three-year term.

—Mr. Murray A. Dalman, formerly director of research for the public schools of Indianapolis, Ind., has accepted a position with the architectural firm of Perkins, Chatten & Hammond, Chicago, as educational consultant. Mr. Dalman has been in educational work for 25 years, the past thirteen of which have been spent in the Indianapolis schools. He is a graduate of DePauw University.

—The school board of Indianapolis, Ind., has appointed successors to three assistant superintendents, whose positions were discontinued last October. The new assistants are Mr. F. T. Glidden, formerly assistant state superintendent; Mr. B. B. Williams, statistician of the state education department, and Mr. C. C. Underwood, formerly superintendent of the Crawfordsville schools.

—Dr. M. G. Neale, of the school of education of the University of Missouri, who accepted the position of assistant commissioner of education of New York state, has reconsidered his decision and will remain at the University. The assistant commissioner will be head of the finance division, a position created at the last session of the New York legislature.

—Supt. F. W. Wiley of Cleveland Heights, Ohio, has predicted an opening-day enrollment of 6,879 pupils. This is an increase of 459 pupils over the opening day a year ago, and has been computed on the basis of the school-enrollment growth for the past five years.

—Mr. W. J. McKone, formerly superintendent of schools at Mason, Mich., and prominently identified with schoolwork in the state, died at his home in Jackson on August 28. Mr. McKone was made a member of the state board of education in 1905 and was reelected in 1909. He had been engaged in the real estate and insurance business for a number of years.

—Mr. W. W. Andrew has been elected superintendent of schools at Rocky River, Ohio, to succeed C. C. Pierce. Mr. R. D. Richards has been reelected as assistant superintendent. Mr. J. J. Young is the new principal in charge of the high school.

—Mr. F. M. Buckley of Braintree, Mass., has been elected superintendent of schools at Derby.

—Mr. James Hanes, superintendent of schools at Lander, Wyo., died at Lamar, Colo., from injuries received in an automobile accident on the Santa Fe Trail.

—Mr. A. H. Dolph of Manitou, Colo., has been appointed superintendent of the high school at Lander, Wyo.

—Mr. Earl C. Duncan has been elected superintendent of schools at Clarinda, Iowa.

—Mr. J. O. Briggs has been elected superintendent of schools at Foosland, Ill.

—Mr. C. E. Humphrey of Denison, Iowa, has been elected superintendent of schools at Grinnell. Mr. Humphry succeeds Mr. Henely, who is on a leave of absence from the schools.

—Mr. H. L. McKenney, superintendent of schools at Auburn, Ind., has been elected president of the local Rotary Club. Mr. McKenney, who has acted as vice-president of the club, takes the place of L. G. Whitten.

—Oklahoma. William Rosser has been chosen superintendent at Aaron, Hobson Burris at Midway, and D. J. Blackwell at Porter High. R. D. Curnutt will remain at Harmony.

—Max S. Hamm has resigned the superintendency of the Marshfield, Oreg., schools.

—Rev. R. A. Sentelle has been named principal of the East Fork, N. C., school. He served for twenty years as superintendent of Haywood county, N. C.

—William H. Hanlon, superintendent of Contra Costa county, Calif., was appointed chairman of the legislative committee of the California Association of School Superintendents.

—The Sycamore, Ohio, rural school district appointed Edgar M. Crawford as superintendent and P. E. Diller as principal.

—Galen Jones is the new principal of the senior high school at Reading, Pa.

—Dr. George A. McFarland, president of the Minot, N. Dak., State Teachers College has completed his fiftieth year as an educator. He began his career as a teacher in a country school in Ohio at $28 a month. He was elevated to his present position in 1922.

—Mr. J. C. King, formerly superintendent of schools at Boone, Iowa, died recently at Chicago. Mr. King had been connected with Newson & Company, textbook publishers, for a period of twenty years.

—Mr. R. A. Holy has been elected superintendent of schools at West Union, Iowa, succeeding H. N. Kluckhohn.

—Mr. O. E. Balyeat of Sparta, Mich., has been reelected for his twentieth consecutive year.

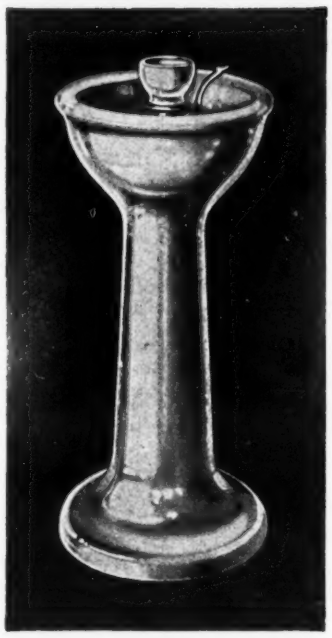
—Mr. W. R. Wykle of Macedonia Heights, Ohio, has been elected superintendent of schools at Lucasville.

—L. C. Sheppard will continue as superintendent of the Hayes (near Storm Lake, Ia.) consolidated school district. Mrs. C. C. Fritcher will serve as principal.

—The school board of Yeadon, Pa., announces the appointment of Mildren Skillen as principal for the local school.

—M. L. Flaningam was reappointed school superintendent at Urbana, Ill.

"PLUMBING NONCO FIXTURES"



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PIONEER MANUFACTURERS OF PLUMBING FIXTURES FOR SCHOOLS

—W. S. Ferguson has been chosen superintendent of the consolidated schools of Tiro, Crawford county, Mich.

—D. E. Patterson will continue as superintendent of schools at New Buffalo, Mich.

—Don D. Putnam was reelected superintendent, and Verna Clowd principal at Freeport, Mich.

—K. S. Olsen has been reengaged as school superintendent at Hemlock, Mich. Miss Berle Russell will serve as principal.

—H. S. Floyd, school superintendent at Struthers, Ohio, recently addressed the Rotarians of Youngstown, Ohio, on what the schools really teach.

—Lloyd Hall Waugh, superintendent of schools at Saugatuck, Mich., was recently married to Miss Ruth Eastman Bundy, daughter of one of the leading Saugatuck families.

—T. N. Lamb of Horton was elected superintendent and Alph Musson of Otisville principal, at Britton, Mich.

—Dean A. Snyder was reelected principal of the high school at Sidney, Ohio.

—C. I. Clark remains as superintendent of schools at Stambaugh, Mich., and Roy Hendra and E. T. Quiatt as principals.

—W. G. Coburn has served as superintendent of schools at Battle Creek, Mich., for 33 years.

"It is an old tradition," says Supt. W. G. Coburn, "that with the passing of the years, the so-called 'born' teacher keeps abreast of the times. Our teachers who have been with us for so many years have been students as well as instructors. They have attended summer sessions of colleges and universities, and some of them have gone so far as to get college degrees."

—The school board of Wapakoneta, Ohio, renamed Alvine Burk principal of the high school.

—G. C. Adler was reelected school superintendent and C. L. Taylor, principal at Pigeon, Mich.

—At Ishpeming, Mich., the following principals were reelected: Monte McFarlane, high school; Stanley Williams, Nellie Kellgreen, Gerda Anderson, Sadie McHale, Helen Sullivan, and Beatrice Sedgwick.

—E. J. Lundy, who has served as superintendent of schools at Good Hope, Ohio, has accepted the superintendency at Bainbridge, Ohio.

—R. W. Rose has been renamed as superintendent of schools at Parkrose, Ore. The principals reappointed at Klamath Falls are: Augusta B. Parker, Lena Hackett, Ebba Bennett, Agnes Lageson, Myrtle Helm, and Etta Farr. William Neidinger was appointed principal at Dufur. J. F. Blanchard at Mosier, and A. W. DeVoe at Maupin. The high school at Bend will be headed by R. E. McCormack as principal. The principals named at Medford are: B. H. Conkle, A. J. Hanby, H. W. Gustin, Ora Cox, Sam Van Meter, and B. R. Finch.

—H. O. Hanna is the new school superintendent of Morrow county, Ohio.

—The public schools of Dundee, Mich., will again be headed by F. M. Ayers as superintendent.

—Adolph Hasse is the new member of the school board of Arcadia, Mich. The board organized by electing Robert Starke president; Vernon Strine secretary, and Edward Johnson treasurer.

—Mr. Crawford Greene, formerly principal of the El Dorado, Ark., high school, has been elected superintendent of schools at Blytheville. Mr. Greene succeeds H. H. Haley, who has gone to Hot Springs.

—Mr. E. W. Ireland has been elected superintendent of schools at Somerville, Mass., at an annual salary of $5,500.

—Mr. Norman C. Koontz, of Titusville, Pa., has been elected superintendent of schools at Midland, to succeed Mr. H. V. Herlinger.

—Mr. W. L. Gard of Tallula, Ill., has been elected superintendent of schools at Beardstown, to succeed James J. Hagan.

—Mr. H. C. Pendrey of Xenia, Ohio, has been elected superintendent of schools at Ironton.

—Mr. F. A. Bell of Atkinson, Ill., has been elected superintendent of schools at Glenn Ellyn.

—Mr. W. H. Stage of Mt. Gilead, Ohio, has been elected superintendent of schools at Murray City.

—Mr. Earle C. Duncan of Albany, Mo., has been elected superintendent of schools at Clarinda, Iowa.

—Mr. Harvey H. Haley of Blytheville, Ark., has been elected superintendent of schools at Hot Springs.

—Mr. Fred Spreng of Laramie, Wyo., has been elected superintendent of schools at Iowa City.

—Mr. Paul Johnson, of Bainbridge Island, Wash., died at the Seattle General Hospital after a brief illness. Mr. Johnson attended Whitman College and was taking a professional course at the University at the time of his death.

—Mr. Eugene B. Butler, formerly director of elementary and high-school inspection in the Indiana department of education, has been appointed director of statistics, reference, and research, to succeed Mr. B. B. Williams, who has gone to the Indianapolis public schools.

—Mr. R. A. Lease, of the State Teachers' College, DeKalb, Ill., has been elected superintendent of the high and graded schools of Sycamore, Ill., at an annual salary of $3,500. Mr. Lease retains his connection with the college as director of the training of kindergarten teachers and as instructor in the summer school.

—Dr. E. V. Tubbs, formerly principal of the New Trier High School, Kenilworth, Ill., has recently been appointed director of curriculum for the Chicago board of education.

—Mr. F. O. Russell, assistant superintendent of schools of Logan county, Ohio, has become associate professor of education in the University of Kansas.

—Mr. R. H. Pride, formerly principal of the schools of South Norfolk, Va., has been elected to the newly created position of superintendent of schools. Mr. Pride holds an A.B. degree given by William and Mary College and has had considerable experience as a supervisor and principal.

—Dr. C. J. Lunak, principal of Hirsch Junior High School, has been elected assistant superintendent of schools at Chicago, Ill.

—Mr. Robert C. B. Parker of High Bridge, N. J., has been elected supervising principal at Mt. Holly, to succeed Mr. E. F. Bunce.

—Mr. Raymond H. White, of Wisner, Nebr., has been elected superintendent of schools at Douglas, Wyo. Mr. White holds a degree given by the University of Chicago. He was head of the Wisner schools for the past six years.

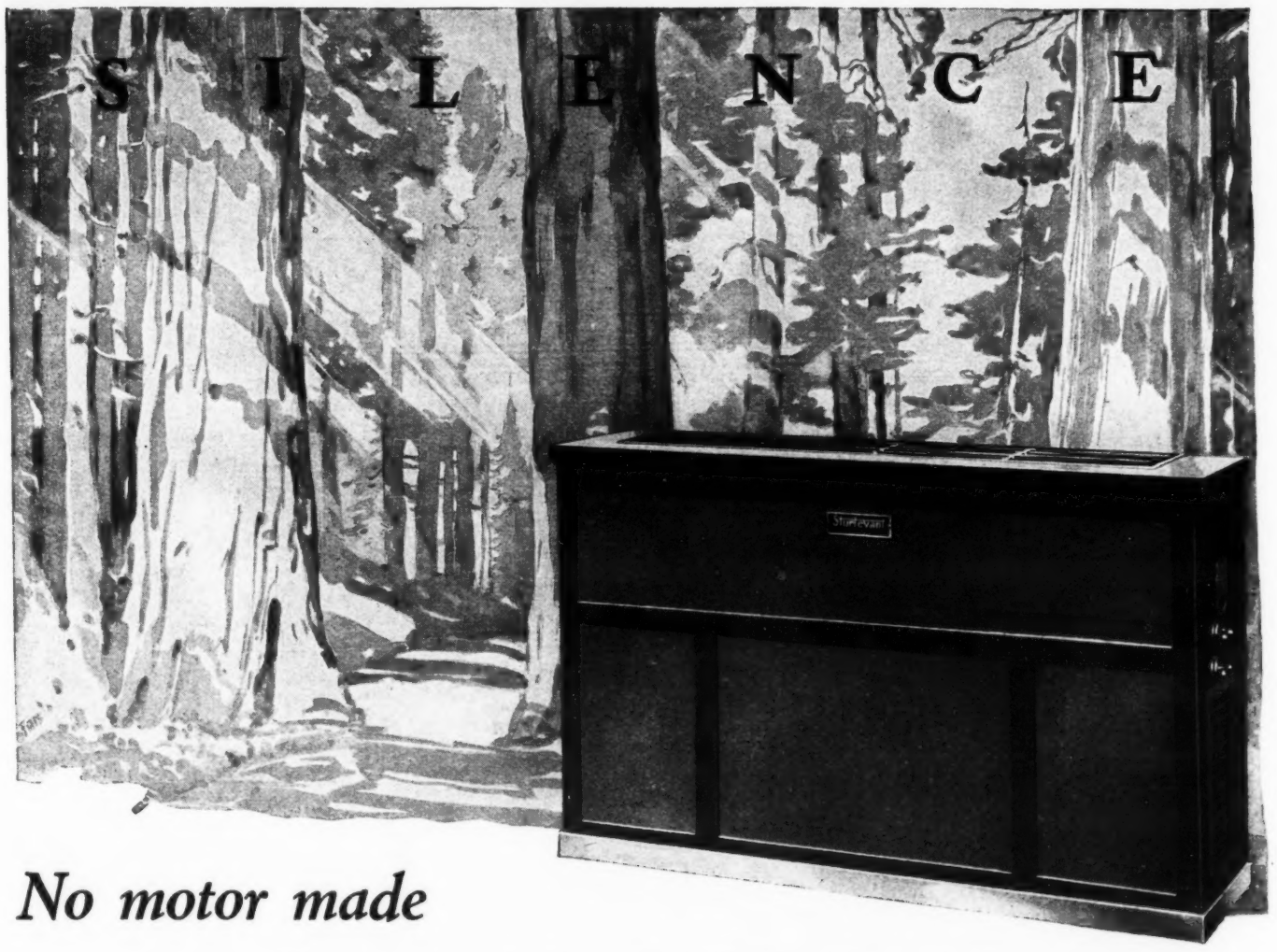
—Mr. D. C. Billman, formerly principal of the high school at Sullivan, Ind., has been elected superintendent of schools, to succeed A. D. Montgomery, who has gone to Crawfordsville.

—Mr. C. C. Underwood, of Crawfordsville, Ind., has been appointed assistant superintendent of schools at Indianapolis.

—Mr. J. D. Murray, of Crawford county, Ind., has become superintendent of schools at Lapel, Ind.

—Mr. Albert Free, of Owen county, Ind., has been elected superintendent of schools at Spencer.

—Mr. A. O. Downing of Knightstown, Ind., has been elected superintendent of schools at Batesville.



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C 147

A pedestal fixture of galvanized pipe with extra heavy vitreous china bowl and vertico-slant stream. An extra strong fountain for the playground.

PERSONAL NOTES OF SCHOOL OFFICIALS

—M. J. Murphy, F. A. Quirk, and J. M. Dwyer were reelected members of Geneseo, N. Y., without opposition.

—E. H. Westbrook was elected and Frank Connor reelected members of the Hemlock, N. Y., school board.

—Only one woman was elected a member of a school board in Goodhue county, Minn. She is Mrs. O. I. Haugen of School District No. 61.

—The new members on the school board of Ely, Minn., are Joseph Veranth, Joseph Mantel, and Joseph Palcher, Jr. J. E. Thompson was elected president of the board. B. M. Lambert was chosen treasurer.

—Oscar Chesterfield succeeds Mrs. F. L. Swinehart as member of the Clinton, Ind., school board. This leaves the Clinton school board without a woman member.

—Harry Crane was unanimously reelected president of the Fort Scott, Kans., school board. Howard Thomas was chosen vice-president.

—The Mountain Iron, Minn., school board elected as Chairman A. W. Saari, C. A. Webb as clerk, and Joseph Kindred as treasurer.

—The school election at Holland, Mich., reported a total vote cast of 2,706 of which Abraham Leenhouts received 571; George Mooi, 575; Winand Wechers, 800, and others a lesser number. The three here mentioned were declared elected. In organizing the school board, Abraham Leenhouts was elected president and Henry Geerlings, secretary.

—The school board of Newton, Kans., reelected W. A. Sterba as president; Harold Lewis, vice-president, and Walter Hart, secretary.

—Mr. I. N. Thurman has been reelected president of the school board at Long Beach, L. I., for another term. Mr. A. R. Specht was reelected treasurer, and Walter Schwalje was renamed as clerk of the board.

—Mr. William Rall has been reelected as a member of the school board of Babylon, N. Y., for his thirteenth consecutive term. Mr. Rall was commended for his many years of faithful service to the schools.

—Mr. L. T. Jones, formerly business manager of the Morton High School, Cicero, Ill., has resigned and will become general manager of the Stover Bungalow Candy Shops at Denver, Colo.

—Mr. E. D. Shepherd has been elected a member of the school board at Houston, Tex., to succeed Mr. Ernest Alexander.

—Mr. John Gaddo of Benld, Ill., has been reelected as a member of the board for a three-year term.

—Mr. C. F. Burgess of Benld, Ill., has been reelected as superintendent for the school year 1928-29, with a substantial increase in salary.

—Mr. Edward Bauman, 62, principal of the Washburn Continuation School in Chicago, died in that city recently after an attack of pneumonia. Mr. Bauman was at one time superintendent of schools at Mt. Vernon, Ind.

—Mr. T. G. Burns of Scranton, Iowa, has been elected superintendent of schools at Rockwell.

—Mr. O. J. Seymour has been elected superintendent of schools at Dickson, Tenn.

—Mr. C. A. DeJonge has been reelected as superintendent of schools at Zeeland, Mich.

—C. G. Scott has been reelected president of the school board of De Pere, Wis. Mrs. L. Steckart was reelected secretary.

—Mrs. Charles J. Sourbier has been named a member of the board of education of Westfield, N. J.

—The school board of Boonville, Ind., has elected the following officers: President, Otto C. G. Roller; treasurer, Emil F. Dillingham; secretary, Robert W. Wilson.

—Mrs. W. N. Best, Miss Abigail Morgan, and C. C. Strong were elected members of the school board of Waverly, Pa., without opposition.

—The board of education of Montgomery, Minn., has reorganized with the following members: E. E. Westerman, Dr. M. V. Havel, Arthur J. Pany, F. J. Kotek, F. H. Washa, and J. A. Kaisersatt. The following officers were elected: President, E. E. Westerman; secretary, J. A. Kaisersatt; treasurer, F. J. Kotek.

—Mrs. Martha King Davis was elected member of the school board of Danbury, Conn.

—The school board of Ft. Plain, N. Y., has reelected the following officers: President, J. F. Hornbeck; vice-president, G. Cary Randall; secretary, Albert S. Wood; treasurer, John D. Hambrecht. The other trustees are John F. Rickard, John L. Cosman, Harry V. Berry, and John Gurtshaw.

—Mrs. Marion B. Odom of Harvey, La., has the honor of being the first woman elected as president of the Jefferson parish school board. Mrs. Odom has been engaged in the drug business for a number of years and has been a member of the board for six years.

—Mr. Galen Jones has assumed his duties as principal of the high school, Reading, Pa. Mr. Jones is a graduate of McPherson College and holds a master of arts degree given by Columbia University. He is an experienced administrator, having served as a school executive in Texas, Oklahoma, and Nebraska. His most recent teaching was done in the summer school of Missouri University.

—Mr. John C. Christensen, architect of the Chicago board of education, has resigned from the office. Mr. Christensen had been head of the bureau of architecture for the past seven years and was credited with designing the new standard type of school now being erected by the board of education.

—Mr. E. G. Van Deventer, business manager of the board of education of Hamtramck, Mich., on September 1, celebrated the 25th anniversary of his service in the school system. In his long period of service, Mr. Van Deventer's name has never been off the payroll and he has lost only six weeks from work. In December last he obtained a leave of absence for the restoration of his health.

Mr. Van Deventer's contribution to the city of Hamtramck and to the school system has been invaluable. He has seen the city grow from a small village to the position it now occupies. As director of the school system for nearly seventeen years, he has made improvements and innovations. In more recent years, he has been in full charge of the supplies and the business side of the administration. At the present time, he is performing very valuable service in supervising the distribution of supplies for the various schools of the Hamtramck school system.

—Mr. Bruce D. Hoffman, recently elected public-school accountant for the board of education of Reading, Pa., assumed his duties on September 1. Mr. Hoffman is a native of Ohio, having received his education in the schools of Cleveland, later graduating from the West Technical High School of that city. He completed a four-year course in business administration and upon graduation, secured employment with the Cleveland Trust Company and the Cleveland Electric Illuminating Company. Mr. Hoffman has been employed as accountant for the Robesonia Iron Company, but maintained his residence in Reading, where he has been lately employed.

—North Tonawanda, N. Y. Mr. Samuel W. Brown has been reelected a member of the board of education for a second term.

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WASHINGTON CORRESPONDENCE

By A. C. Monahan, Formerly U. S. Bureau of Education

Quality and Price

Educational buyers are interested in securing the best quality of school supplies and materials of all sorts at the lowest possible price. They are sometimes skeptical of manufacturers who, from time to time, announce that they have a "better quality at a lower price."

This is, however, entirely possible. The United States Bureau of Standards, in a recent publication, has stated how. It says, in effect, that scientific research is enabling manufacturers to improve the quality of materials entering into their products. It is also bringing out hitherto unknown or little understood properties of commonplace materials. New and substitute materials are coming to the front in several fields, often possessing certain advantages to the consumer over the materials they have displaced. Quality improvement through research is not new to American industry, but the steadily widening application of research reflects a growing appreciation of its value in bettering quality.

Simplification is likewise contributing to this end. Companies which have eliminated superfluous lines and concentrated their efforts on a simplified line find the quality of their products automatically improving. Defects, even minor faults, which in the days of too many lines, short runs, and frequent changes of machine set-ups, were overlooked or lost in the shuffle, assume greater proportions by reason of their greater numbers. The frequency of their occurrence may be no greater than before. The ratio may still be 10 "firsts" to one "second," or 100 "firsts" to one "second."

But, when units are made by the thousand instead of by the hundred, then the "seconds" make a larger pile and attract more notice. Someone gets curious; somebody wants to know why the pile is so big. Then correction begins. Possibly better raw material is bought, or more care is given to processes or perhaps the machines are improved. Eventually, the cause is located and the frequency of the defect is cut down. Product quality is improved as the result of simplification. So far as simplification has coincidently helped to make mass production possible, and thus lower unit costs, it has made a double contribution.

By reducing "seconds," spoiled work, or scrap, and by lowering unit costs, simplification has provided the manufacturer with one answer, and a profitable one at that, to the buyers of the age-old cry, "better quality and lower price."

Simplified Practice

In both of these methods, scientific research and simplification in practice, the Bureau has done much valuable work for the industries. It has worked out plans for simplified practice in the standardization of products for 95 separate commodities, including many used extensively in school buildings, equipment, and supplies.

During the quarter ending June 30, 1928, seven new simplified-practice recommendations were completed. During the same quarter the total number of acceptances to simplified-practice recommendations increased from 9,465 to 10,637.

Nine general and 21 preliminary conferences were held by various industries, under the auspices of the "simplified practice" division, for the purpose of discussing simplifications. During the same period five general and twelve preliminary conferences were held under the auspices of the "commercial standards" unit.

A total of nine simplified-practice recommendations came before their respective standing committees for review during the quarter ending June 30, 1928. Three were revised, five were reaffirmed, and one (Simplified Practice Recommendation No. 28, Sheet Steel) the standing committee deemed necessary to divide into two portions, to be published separately, one on sheet steel and the other on iron and steel roofing, the latter to be known as Recommendation No. 78.

High-School Graduation Requirements

A study of the state and city requirements for high-school graduation being completed by Prof. C. A. Jessen, of the Bureau of Education, will be available in printed form by Thanksgiving. It has to do principally with the subjects of study required for graduation. The number of units required is quite constant, but in subject matter there is much variation.

These regulations in certain states are matters of legislation; in others, state department of education rulings. All of these laws and rulings have been collected by the Bureau, together with the reguations of school boards in approximately 500 of the larger cities.

Schools for the Blind

Of the 80 institutions for the education of the blind in the United States, 47 are state institutions, 21 are city schools or classes, the others are private, according to the Bureau of Education. There are a few schools additional to these 80, but they failed to report to the Bureau.

These 80 schools have 6,084 pupils, of whom 55 per cent are boys and 45 per cent are girls. Of the total number, 633 boys and 603 girls were in high-school classes, 177 being graduated from high-school classes in June, 1927.

There are 863 instructors employed in the 80 schools, of which number approximately one fourth are men. Most of these instructors were trained at the Perkins Institute, Watertown, Mass., Pennsylvania Institute, Overbrook, Pa., and Peabody College at Nashville, Tennessee.

Schools for Delinquents

Of the 173 schools for delinquents in the United States, 158 reported statistical data to the Bureau of Education for the school year of 1926-27. A total of 84,317 inmates were in these 158 institutions, 77 per cent boys, and 23 per cent girls, 86 per cent were white, and 14 per cent colored.

The schools in these institutions enrolled 74 per cent of the inmates, and trades or gainful occupations were taught to 75 per cent of the inmates.

The inmates of these 158 institutions are committed to them by juvenile and other courts. They are from 5 to 18 years of age. Over 9 per cent of them could not read or write when admitted. A few are discharged still illiterate.

Approximately 6 per cent of these children are foreign-born. This is 1 per cent less than the total percentage of foreign-born children in the United States. The numbers of native-born of native parents and of foreign-born parents respectively are about the same as the percentages for these two groups in the total child population.

The cost of caring for these delinquents is considerable. The per-capita investment in property alone is nearly $2,000. The per-capita annual expenditures for current expenses only is $425. It varies greatly as one might expect. In South Carolina it is $147; in Wyoming, $630; and Indiana only $5 less. In eight states, the average per-capita cost per year for current expenses is less than $300; in 10 states $300 to $400; in 14 states $400 to $500, and in 12 states over $500.

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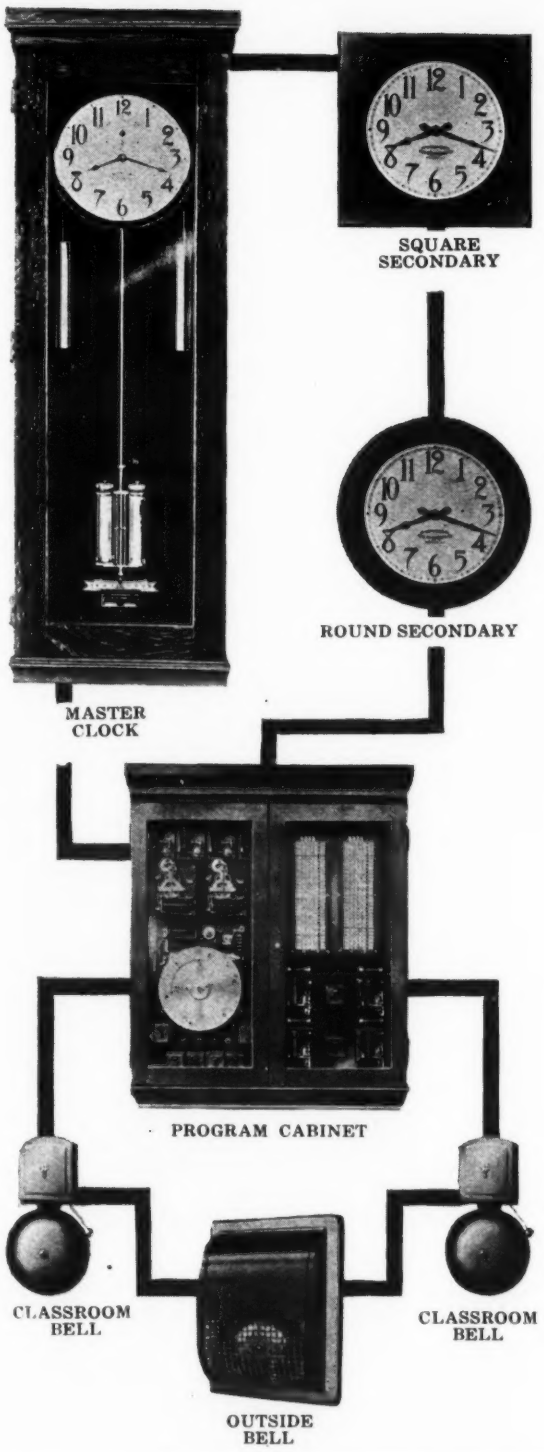

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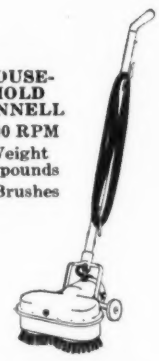

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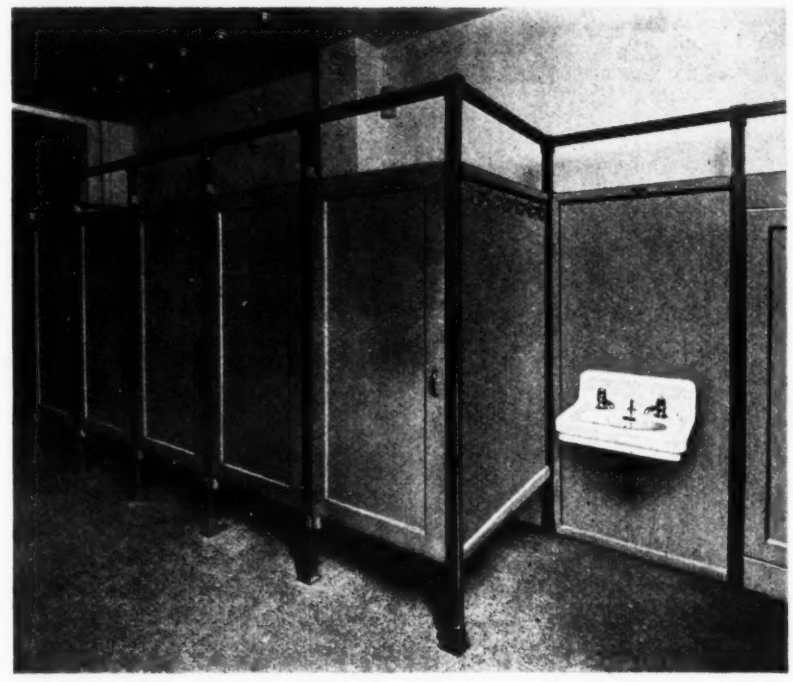

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A JANITOR'S SHORT COURSE AT SHENANDOAH, IOWA

A short course for janitors was held on August 15, 16, and 17, at Shenandoah, Iowa, under the direct supervision of Mr. Lyndon J. Murphy, sanitary engineer, and Mr. Royal H. Holbrook, heating and ventilating engineer of the extension division of the Iowa State College at Ames. The project, which was initiated and supported by Mr. H. M. Taylor, supertintendent of schools at Shenandoah, was attended by fourteen janitors, a few of whom came from a distance of two hundred miles. During the period covered by the course, there were fourteen men enrolled, with a total attendance amounting to 39 days. The cost of the course reached a total of $56.16, or $1.44 per man per day.

The program opened on the first day with a talk by Supt. Taylor, on "The Janitor, the School, and the Community"; Mr. L. J. Murphy discussed "The Qualifications of a Good Janitor"; Mr. Royal H. Holbrook took up the subject of "Hot-Air Heating"; Mr. L. J. Murphy discussed "The Cleaning and Preservation of Wood Floors." A fifth talk took up the subject of "Repair and Adjustment of Locks and Door Checks."

On the second day, Mr. R. H. Holbrook talked on "Steam and Hot-Water Heating Systems"; Mr. L. J. Murphy took up the subject of "The Cleaning of Tile and Terrazzo Floors"; Mr. R. H. Holbrook talked on "Principles of Ventilation and Tests of Air Circulation"; Mr. L. J. Murphy discussed "The Cleaning of Windows, Blackboards, Walls, and Furniture." Other topics taken up were "The Repair of Electrical Fixtures and Appliances," and "Temperature Control."

On the third day, Mr. R. H. Holbrook opened the program with a talk on "The Judging of Coal on the Heat-Unit Basis"; Mr. L. J. Murphy discussed the subject of "School Sanitation," taking up the various phases of disinfectants, deodorants, drinking fountains, and toilets"; Mr. Holbrook talked on the subject, "Keeping the Power Plant Clean and Summer Care of the Heating Plant"; Mr. L. J. Murphy discussed "The Maintenance of School Grounds and the Care of Shrubbery." Other topics taken up were "The Repair and Maintenance of Plumbing Fixtures," "The Inspection of School Grounds and Their Maintenance," etc.

Of the fourteen men in attendance at the course, five were from Shenandoah schools, five were from noneducational buildings in the city, and four were from other cities outside of Shenandoah. The largest cost, $21.60; was for Shenandoah school janitors, while the smallest cost, $2.88 was represented by two local noneducational buildings and one outside school system.

PERSONAL NEWS

—Supt. C. T. Canon of Russellville, Ky., has been reelected for another four-year term. Mr. Canon has completed a service of eight years as head of the school system.

—Supt. John J. Richeson of Youngstown, Ohio, was a recent speaker at the Kent state normal college.

—S. M. Stouffer, superintendent at Hanover, Pa., has accepted the superintendency at Pottstown, Pa.

—J. F. Bemiller is the new superintendent at Galion, Ohio.

—Superintendent J. J. Hagan and 200 teachers of Rock Island, Ill., were tendered a public reception by the local board of education. The speakers included Justin Washburn, county superintendent of schools, and J. F. Witter, president of the Rock Island board of education.

—Miss Marian J. Wesley, formerly primary supervisor in the schools of Lynn, Mass., has been appointed assistant county superintendent, in charge of elementary education, in the public schools of Luzerne county, Pa. Miss Wesley is a graduate of teachers college, Columbia University, and had served as supervisor of primary grades at Quincy, Mass., and also at Haverhill, before going to Lynn.

The vacancy in the office of primary supervisor has been filled with the appointment of Miss Julia E. Joslin. Miss Joslin is a graduate of teachers college and held a similar position at Haverhill before coming to Lynn.

—Mr. R. J. Carroll has been elected superintendent of schools at Dumont, Iowa.

—Mr. S. N. Erwin has been elected superintendent of schools at Glenrock, Wyo.

—Mrs. Rhea M. Gibson has been reelected president of the board of education at Augusta, Kans. Mrs. Gibson has been president of the board since August, 1924.

—Mr. Charles F. Holdefer, for the past sixteen years part-time clerk of the board of education of Hamilton, Ohio, has been appointed to the position of permanent clerk. Mr. Holdefer assumed his duties on September 1.

Mr. Holdefer has been connected with the Hamilton school system for the past 24 years. Starting as assistant to the regular clerk in 1904, Mr. Holdefer remained in that position until 1912, when he was appointed part-time clerk.

In addition to his regular clerical duties, Mr. Holdefer will also have charge of the purchasing department of the school system.

—Mrs. T. S. McClure is the new member of the school board at San Antonio, Tex. In assuming her duties, Mrs. McClure has declared that she will maintain an open mind, that she will investigate carefully before acting, and will seek to avoid "factionalism."

—Mr. A. G. Miller has resigned as superintendent of schools at Waycross, Ga. Mr. Miller will enter another line of work.

—Mr. M. C. White has resigned as superintendent of schools at Deadwood, S. Dak., in order to enter commercial work.

—Mr. L. O. Morford has been elected superintendent of schools at Ireton, Iowa.

—Supt. H. D. Johnston of Coleman, Mich., has been reelected for a fourth consecutive term.

—Supt. H. G. Taft of Eau Claire, Mich., has been reelected for a sixth consecutive term.

—Mr. Samuel M. Stouffer of Hanover, Pa., has been elected superintendent of schools at Pottstown, at a salary of $5,000 per annum.

—Mr. H. N. Kluckhohn has been elected superintendent of schools at LeMars, Iowa, to succeed Mr. L. J. Gillis.

—Mr. W. A. Stage of Mt. Gilead, Ohio, has been elected superintendent of schools at Murray City.

—Supt. Harry Rigg of Otsego, Mich., has completed graduate work leading to an M.A. degree.

—Mr. O. M. Corbell of Prescott, Ark., has been elected superintendent of schools at Centralia, Ill.

—Supt. F. P. Geiger of New Philadelphia, Ohio, has been reelected for a third consecutive term.

—Mr. B. O. Skinner, formerly superintendent of schools at Marietta, Ohio, has been elected president of Wilmington College at Wilmington, Ohio.

—Mr. Raymond E. Pinkham of West Orange, N. J., has been elected superintendent of schools at Weehawken, N. J. Mr. R. E. Hearn succeeds Mr. Pinkham as acting principal of the West Orange Junior High School.

—Mr. Delbert Brunton, of the Chico, Calif., State Teachers' College, has been appointed principal of the high school and superintendent of the Mountain View School district in California, to succeed W. A. Otto.

Aspects of Tenure and Turnover Among Minnesota Teachers

(Continued from Page 56)

of these departments before a first-grade certificate is granted. In 1924-25 there were 1,190 graduates from such departments. After teaching a year in a rural school, any graduate of a high-school teacher-training department may go to a state teachers' college and there receive credit for one year's work. In other words, such a teacher may finish the regular two-year course at a teachers' college in one year. After spending a year at a teachers' college, the college of education of the state university may be entered for further training. Here credit is given for two years of work at the teachers' college. Thus, a student may finish collegiate training in three years of actual collegiate work plus two years of which were spent in a high-school teacher-training department, the other teaching in a rural school.

Regardless of whether this method of obtaining a degree has merit or not, it cannot help but make the rural school a stepping-stone for any ambitious teacher. Since the rural school at best cannot offer the advantages in teaching which the graded system can, it labors under a tremendous disadvantage. The remedy is consolidation of rural districts into larger units, with the formation of graded schools, large enough so that each teacher instructs not more than two grades.

Training of Teachers

The training of teachers cannot be discussed intelligently unless standards are set up. Rural teachers are considered to be up to standard if they hold a first-grade certificate. This is obtained upon graduation from a one-year high-school teacher-training department or upon completion of a one-year elementary course at a state teachers' college or through examination. According to the rules of the state department of education, a first-grade certificate entitles the holder to teach in any rural school. In 1924-25, a total of 87.5 per cent of the rural teachers held first-grade certificates, while in 1920-21, but 69.6 per cent were thus qualified. This indicates considerable improvement on the part of this group of teachers so far as training is concerned.

For elementary teachers, the state department of education recognizes the holding of an advanced diploma from a teachers' college, which is granted upon completion of two years of work as standard for the group. In the case of secondary teachers, a first-grade professional certificate is the standard required. This is obtained after a degree is received from a standard college or university, provided a certain number of credits in education have been earned. Figure 2 shows the extent to which the elementary and secondary teachers of the state meet the standards as set up above. It is rather surprising to note that both the elementary and secondary teachers in Minneapolis, St. Paul, and Duluth, rank lower in this respect than do the teachers in the smaller school systems. When it is recalled that the teachers in the former cities have a median experience of ten years or more, the reason is evident. Many of these teachers have held their present position for a term of years. They are probably efficient, so that there is no excuse for disturbing them. When they took these positions, the requirements were not as high as they are now. However, should they ever leave their present places, they will have difficulty in obtaining others, because they lack the required qualifications. To some extent, this same situation exists in the smaller systems; the teachers in cities of 5,000 to 20,000 population qualify to the extent of 74 per cent, while those of the high-school departmental schools reach 86 per cent. Here again it is a case of teachers remaining in one position for some time. In the small schools, where the teaching personnel changes every year or two, teachers must be fully qualified as they could not otherwise obtain positions under the present regulations.

Table III summarizes data as to professional qualifications of teachers, principals, and superintendents for the state as a whole.

TABLE III

Professional Qualifications of Teachers, Principals, and Superintendents, Minnesota, 1924-25. (Rural teachers excluded.)

Grouping	Up to Standard Cases	Up to Standard Per Cent	Below Standard Cases	Below Standard Per Cent	Total Cases	Total Per Cent	Total Employed
Teachers:							
Elementary	5,535	78.0	1,593	22.0	7,128	100	8,621
Secondary	3,297	93.8	218	6.2	3,515	100	4,392
Total	8,832	83.0	1,811	17.0	10,643	100	13,013
Principals:							
Elementary	102	62.0	65	38.0	167	100	169
High school	241	98.0	5	2.0	246	100	257
Total	343	83.0	70	17.0	413	100	426
Superintendents[a]	372	88.0	49	12.0	421	100	437

[a]Both superintendents of state high schools and principals of high-school departmental schools are included here. The latter perform the same duties as the former.

From the table it is apparent that 78 per cent of the elementary teachers and 93.8 per cent of the secondary teachers reach standards set for professional qualifications. MacLean found that 83 per cent of the elementary teachers qualified in 1920-21. If his findings were valid, the conclusion must be reached that the elementary teachers of the state have not advanced enough in this respect. Surely if the supply of teachers is abundant, standards should be raised, and all teachers should be expected to qualify fully by summer-school work or correspondence study.

Secondary teachers, as a group, cannot be subjected to the same criticism as the elementary teachers, for they qualify to the extent of 93.8 per cent as compared with 71 per cent as found by MacLean. This represents real progress and indicates that the secondary teacher prepares adequately before taking a position. High-school principals also reach standards set to such a degree that the number below par is negligible.

The superintendent should be a man with adequate experience and training. To be lacking in either respect would be detrimental to any school of which he became the head. These officials in Minnesota quality to the extent of 88 per cent, which compares very favorably again with Douglas' study of superintendents in the United States, in which he found that 87 per cent of those in cities under 20,000 in population held degrees. It can be said that Minnesota superintendents are maintaining high professional standards so far as training is concerned. For superintendents of state high schools alone, the per cent qualifying is 94.4, which is even more gratifying.

Turnover of Teachers

Considerable confusion as to the exact meaning of the term, "turnover," exists both in education and in industry. It is unfortunate that the expression has not been standardized as much confusion has resulted. Originating in industry, the term was used to express changes in personnel. One writer refers to it as the number of persons added within a given period to the payroll.[5] Another thinks of it as representing the number of persons whose employment is discontinued.[6] A third one speaks of turnover as representing the number of persons leaving the payroll who are actually replaced.[7] This last explanation of the term seems the most logical as it excludes the number of additions due to expansion, as well as the number of separations due to actual reductions in a working group. By taking the replacements in a school system as turnovers, both the number of additions due to an expansion, and the number of separations due to a contraction, can be excluded and this has been done in the present study. The phrase, "rate of turnover," is used to designate the percentage obtained from a ratio having the number of turnovers for its numerator and the number of teachers employed for its denominator. That is,

$$\frac{\text{Number of turnovers}}{\text{Number employed}} = \text{Per cent of turnovers.}$$

For this portion of the study a careful check of the teacher-qualification reports was made, comparing those for each school for the two school years, 1924-25 and 1925-26. This was done to determine the actual number of teachers who left their positions at the close of the school year 1924-25 and were replaced by others for the school year 1925-26. This procedure was used to eliminate any turnover due to

[5]Gilson, Mary B., Computation of Labor Turnover. *Iudustrial Management*, 56, p. 244, September, 1918.
[6]A Study of Labor Mobility, *Annals American Academy*, 103, p. 176, September, 1922.
[7]Watkins, Gordon S., Analysis of Labor Turnover. *Administration*, 2, p. 27, July, 1921.

(Continued on Page 114)

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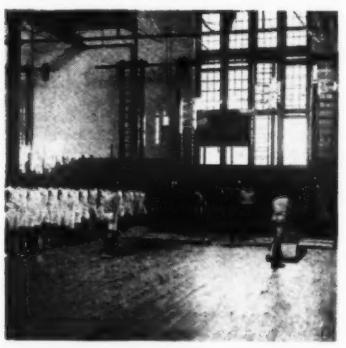

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(Continued from Page 112)

growth or expansion, as well as all separations where a contraction had occurred in a school system. Data for the groupings as hitherto established are shown in Figure 3. A study of this graph reveals that turnover is not a serious problem in the three large cities, where it is less than 15 per cent for the secondary teachers in Minneapolis. Of these, 24.1 per cent were replaced. However, it becomes a more serious matter the smaller the population grouping becomes. In the high-school departments, 50.9 per cent of 448 secondary teachers studied were replaced by others. In the case of elementary teachers, the same situation existed, 42.1 per cent of the teachers in the high-school departmental schools having given way to others. It is apparent that the rate of turnover in the smaller schools is excessive.

So long as marriage and death operate to remove teachers from the profession there will be changes in personnel. Such causes for turnover cannot be prevented. Again, when a teacher succeeds in gaining a promotion with increase in salary, turnover is desirable both for the teacher and for the system which thus gains a better instructor. But some causes for this mobility can be removed. Higher training standards will eliminate some unworthy teaching candidates who would not hold any position long. Better buildings, equipment, and living conditions, coupled with better salaries and assurance of fair treatment would result in longer tenure on the part of teachers in the smaller school systems. The remedy lies with those who administer such schools.

A summary of the turnover situation for the rural, elementary, and secondary teachers is found in Table IV. Comparisons are made with results obtained in other studies of this same problem of turnover.

Of the studies referred to in Table IV for comparison, Allen's dealt with the high-school teachers of California; White's with both elementary and secondary teachers in Iowa, while Johnson investigated the status of instructors in smaller school systems in Minnesota. An analysis of the table leads to the conclusion that the fluidity is probably even greater in other states than it is in Minnesota. The elementary group is somewhat more stable in this respect, but Johnson found that 35 per cent of the elementary teachers whom he studied, left their positions. It should be remembered that he studied the schools in cities of less than 5,000 population, which yield a higher rate of turnover than the larger cities.

TABLE IV
Turnover of Rural, Elementary, and Secondary Teachers, Minnesota, 1924-25 to 1925-26, with Comparisons

Teacher Grouping	Total Number Cases Studied	Total Number of Turnovers	Rate of Turnover
Rural teachers	8,333	5,387	64.4
Elementary teachers	6,988	1,797	25.7
Secondary teachers	4,211	1,306	31.0
Total (all teachers)	19,532	8,490	43.5
Comparisons			
Allen high school teachers[8]	7,284	2,549	35.0
White high school teachers[9]	5,294	1,960	37.0
Johnson high school teachers[10]	1,748	689	39.4
White elementary teachers	8 585	2,501	29.0
Johnson elementary teachers	2,802	987	35.2

[8]Allen, Hollis P., Teacher Turnover and the Placement Problem. THE AMERICAN SCHOOL BOARD JOURNAL, May, 1925.
[9]White, Wendall, Rate and Causes of Turnover of Iowa Teachers. THE AMERICAN SCHOOL BOARD JOURNAL, December, 1925.
[10]Johnson, Raldo, Analysis of Certain Factors Concerned in the Selection of Teachers in the Smaller School Systems of Minnesota. Minneapolis, 1927.

A presentation of findings as to turnover is not complete unless data for principals and superintendents are included. This information is given in Table V.

Principals of state high schools show an excessive turnover of 40 per cent, which is to be expected when it is recalled that the median experience of these teachers is but 5.2 years. It is thus evident that, as a class, these principals are rather young and have not found the position which they intend to make their lifework.

TABLE V
Turnover of High-School Principals and Superintendents in the Four-Year (State) High Schools and of the Principals of the High-School Departments, Minnesota

Grouping	Total Cases Studied	Total Number of Turnovers	Rate of Turnover
Group 1 (state high schools)			
Principals	243	98	40.0
Superintendents	254	41	16.1
Group 2			
Principals in high-school departmental schools	180	54	30.0

Rather, the job is used as a step to something better. In the case of the men, this often means the obtaining of a superintendency.

Superintendents of state high schools, with a turnover of but 16 per cent, show much more stability than principals of their high schools. It is encouraging to know that this is true, for their positions are important and call for men who are able and willing to remain for some time in a school in order that their policies may be not only introduced but carried out to the fullest extent possible. Those men who are serving as principals of the high-school departmental schools are very much in the same situation as high-school principals. They are working in small schools of lower classification than the state high schools of Minnesota and, naturally, are working for promotion to the position of a superintendency of a state high school.

Summary

The rural teacher with little experience in the profession and with no desire to remain more than a year or two in any one school, presents the most serious problem in the effort to stabilize the teaching profession so that it may be more efficient and better prepared for its task. The need is for men and women who

(Concluded on Page 117)

Many public officials, purchasing agents, engineers and others who either buy fence or inspect and approve it after installation, are unfamiliar with important points of difference in chain link fence and its erection.

If all goes well, they may not care. But what if it turns out to be an inferior fence? What if top rails droop, gates sag, posts get "tipsy" and the entire fence takes on a degenerate appearance, and becomes so much junk in a few short years?

A COSTLY EXPERIENCE THAT CAN BE AVOIDED

Such experience is costly. But it can be avoided. Not, however, by merely comparing specifications and prices. What do they tell you, for example, about strength and fit of fittings or design of gates? And what of samples? They tell you nothing about fence erection.

Yet you need not gamble with your fence dollars. You can *make sure* of high-grade materials and first-class erection, resulting in low annual cost of fence protection in the long run.

Call a Cyclone Fence Specialist. Cyclone occupies a unique position in the fence field. Cyclone has built up a national organization providing a complete, specialized fence service in every locality — every detail in strict adherence to the acknowledged high standards of this company. When you purchase Cyclone Fence, you get a Cyclone job from start to finish —fence built in the factory and erected on the job by *one* organization which takes Complete Responsibility without equivocation.

Call a Cyclone fence specialist and get a thorough understanding of fence in relation to your requirements. Know the difference in chain link fence. Before you award a contract, look for the Cyclone telephone number in the classified section of your local telephone directory, or write to nearest Cyclone offices.

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CYCLONE FENCE COMPANY :: *Main Offices: Waukegan, Illinois*

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Fencing for residences, estates, schools, playgrounds, factories, property of all kinds.

© C. F. Co., 1928

"DAD SAYS I'M GROWIN' UP"—

"Mother told dad she's noticed somethin' lately—says I come home from school all slicked up, with clean hands and face, like the big boys. I told her about the swell new towels we have at school."

Boys and girls, teachers too, like Bay West Kraft Paper Towels. These towels are exceptionally soft and quick-drying — the ideal towel service for schools. Hundreds of America's leading schools use them. Try them at our expense. Mail the coupon.

Bay West DUBLTOWLS—a double sheet towel service—the fastest hand-drying medium in existence. Bay West SINGLTOWLS—served one sheet at a time — a high-class towel service at low cost per towel. Also a complete line of dispensing cabinets. Write for descriptive catalog.

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FREE TRIAL OFFER

Bay West Paper Co.,
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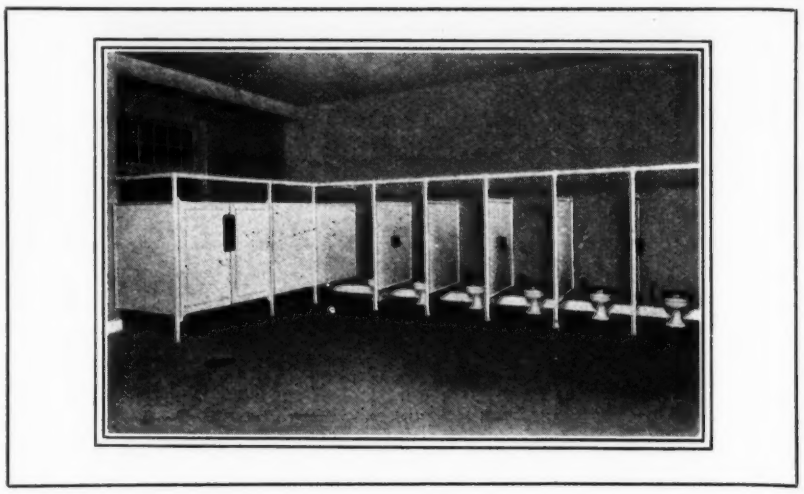
Gentlemen: Send me a De Luxe Dispensing Cabinet and several packages of Bay West Towels, both types, for free trial. (Carrying charges prepaid. No obligation involved.)

Name .....

Address .....

City..... State.....

School .....



Low Cost

The most cursory investigation will demonstrate that steel toilet partitions—and particularly WEISTEEL partitions — are far less costly than compartments of other materials. That is to say, your building dollars produce a greater result when you specify WEISTEEL for your toilet rooms.

Long Life

Enduring steel, carefully constructed according to the most advanced engineering practice, is fully capable of withstanding the hard usage which school equipment inevitably receives. A coat of paint, now and then, makes it *new* again.

Sanitation

The V-rails of WEISTEEL partitions are perfect reinforcements because they afford no crevices in which dirt or germs may lodge. The panels are easily wiped down—that is the only cleaning necessary. For true sanitation, as well as economy, insist on WEISTEEL partitions.

WEISTEEL
TRADE MARK REGISTERED
COMPARTMENTS

Toilet and Shower Compartments Dressing Room Partitions Hospital Cubicles

HENRY WEIS MANUFACTURING CO., INC.
Elkhart, Indiana (Formerly Atchison, Kansas)

Branch Offices:
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ATLANTA

Representatives in All Principal Cities

Eight of the "Big Ten," are now users of Knockdown Bleachers

1. Chicago
2. Illinois
3. Iowa
4. Michigan
5. Indiana
6. Wisconsin
7. Ohio State
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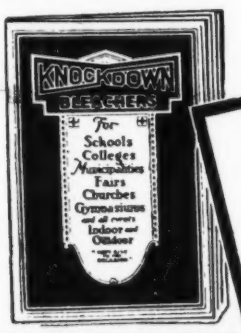
Send for The Knockdown Bleacher Booklet, which gives you full information on estimating and ordering seats for your crowds.



LEAVITT MFG. CO
Dept. S-2
Urbana, Illinois

Please send me without obligation a copy of the Knockdown Bleacher Book.

Name _____

Address _____

(Concluded from Page 114)

will make teaching their lifework rather than a stepping-stone toward some other goal.

The training of teachers has improved greatly within the past five years so that it can no longer be said that many of our instructors are inadequately prepared. The supply of trained teachers is beginning to outstrip the demand so that it may soon become necessary to adopt measures for limiting the numbers of those who wish to enter the professions as well as to raise the standards required for certification.

The smaller schools, located in the villages of the state, are at present the training stations for the young, inexperienced teachers after graduation from the training schools. The movement of teachers from the small schools to the larger systems is shown by the excessive turnover in the former as compared with the low rate in the latter. The remedy for this situation lies in awakening school officials to the seriousness of the problem of engaging teachers with greater experience and then retaining them over a longer period of years. This problem can be solved only by paying better salaries and by improving teaching and living conditions to the point where the teacher will be satisfied to live and work in a small school in a small town.

MIAMI SENIOR HIGH SCHOOL

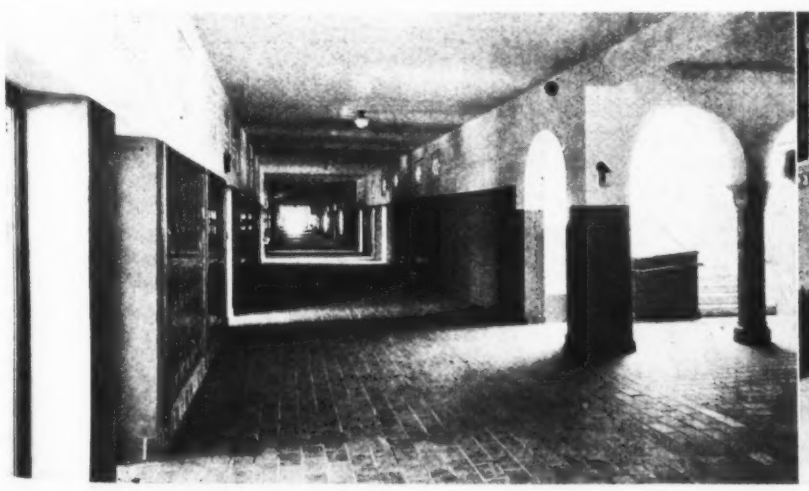
(Continued from Page 60)

rooms. The boys' department has a basket-locker combination system. In the girls' shower room there are four private dressing rooms around each shower.

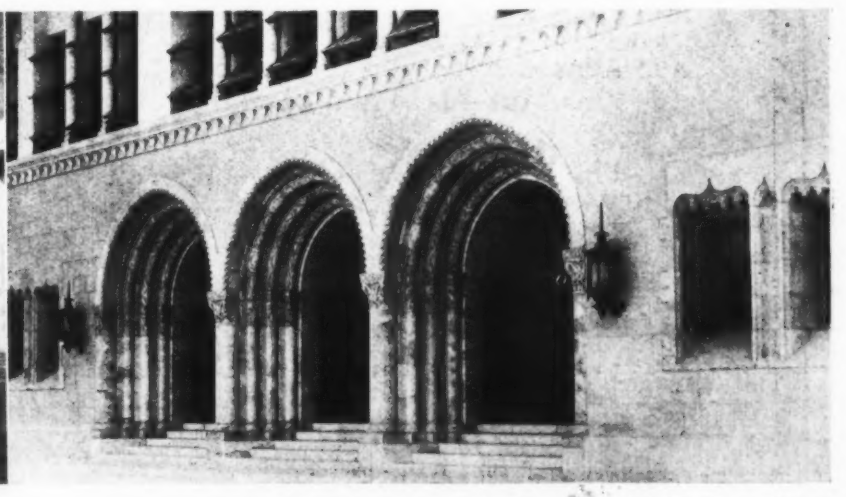
The bowl-shaped auditorium has a seating capacity of 1,290. It has a picture booth, with a spotlight, a projection machine and a fully equipped theatrical stage. The design and finish of the room are dignified and useful and the acoustical properties are very good. Provision has been made for the future installation of a pipe organ. Auditorium dressing rooms are not used frequently in high schools, but when they are needed, large ones are required. To cut down the cost, five standard classrooms have been located adjacent to the stage, and these can be used as dressing rooms when necessary.

Some of the special features in the high-school plant are a three-room apartment for the custodian, a first-aid clinic, an office for the dean of boys, and an office for the dean of girls; wide, spacious corridors; ample and conveniently located stair exits; steel lockers recessed in the corridor wall adjacent to the home room for each student and teacher. The electric equipment includes a complete program-clock system, telephones, fire horns, corridors, and playground gongs. Efficiency lighting has been installed throughout as the building is also used for evening classes.

(Concluded on Page 120)



A SECOND FLOOR CORRIDOR



DETAIL OF FRONT ENTRANCE

MIAMI SENIOR HIGH SCHOOL, MIAMI, FLA.
Kiehnel & Elliott, Architects, Miami, Fla.

The Improved Durabil

EVER since the Durabilt Steel Locker first made its appearance in the fall of 1921 there has been an ever-increasing demand for this quality product.

Even though our plant operated both day and night for a period of several years we found ourselves unable, at times, to supply the needs of those who were anxious to obtain Durabilt Lockers.

While we have always been proud of the service rendered our customers, we have recently completed additions to our factory, which have enabled us to increase our output materially and at the same time further improve our service.

Not only have we increased our capacity and improved our service, but as a result of hundreds of tests and experiments many refinements have been added to our product which make it possible for us to truthfully say in making announcement of this new locker that—

"The Improved Durabilt Locker has no Equal!"

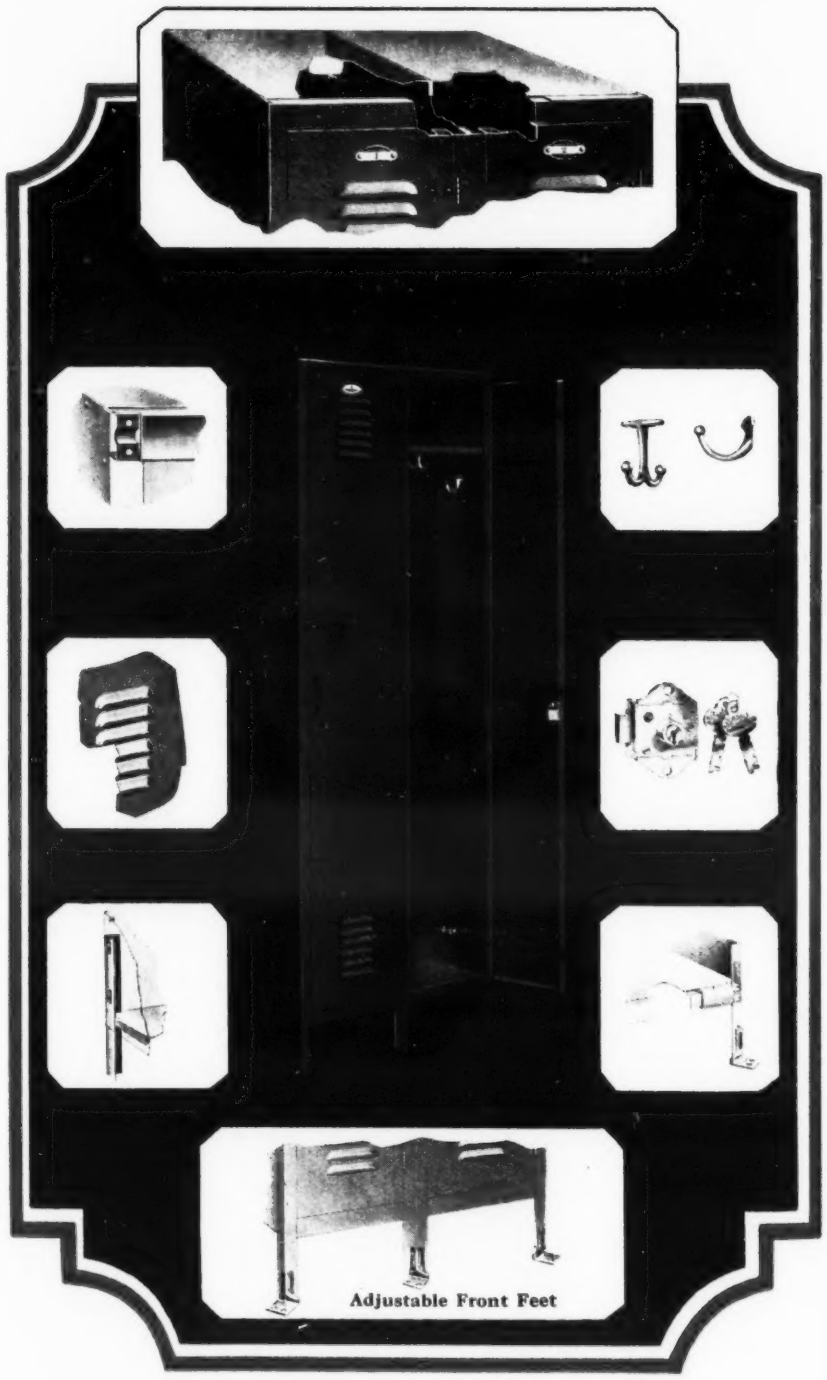
It has constantly been our desire to produce a locker which excelled in every respect and yet sold at such a reasonable price that it would be false economy for anyone in need of locker storage facilities to equip their buildings with any but Durabilt Steel Lockers.

A careful study of the list of outstanding features of Durabilt as described on the adjoining page will be sufficient to convince anyone that—

Durabilt is Positively the Greatest Locker Value on the Market Today

Don't fail to see a sample of this new locker before you buy—Compare it with others and see for yourself that the Improved Durabilt Locker is in a class by itself and is all we claim for it.

Naturally it is impossible for us to adequately describe this wonderful locker in a two-page ad, so we have prepared a comprehensive folder, No. 6000, which illustrates it fully. It's yours for the asking.



DURABILT STEEL LOCKER COMPANY

400 Arnold Avenue, Aurora, Ill.

Sales Offices in all Principal Cities

Let Construction-Not Pri

bilt Locker Has No Equal!

Outstanding Construction Features

1—**Rigid Door Frame.**—1" x 1" x ⅛" hard steel angle uprights. 1½" x ¾" No. 14 gauge formed steel channel cross members securely joined to uprights at each end by two $\frac{3}{16}$" countersunk head rivets, as riveting for this purpose is much stronger than welding. (Since *the strength of any locker is dependent on the rigidity of the door frame,* it will pay you to look into this point carefully when selecting your locker equipment.)

2—**Scientifically Reinforced Door.**—The illustrations of "Door Construction" and "Top Construction" show full-length tubular reinforcements on vertical edges of door, also hemmed flanges as used on both top and bottom of door. (No danger of bottom flange of door being bent out of shape by stepping on it.) Corners of door are securely tied together by means of arc welding.

3—**Quiet Automatic Latching Device.**—(No metal to metal contact when door is being closed.) This Patented, Tamperproof Latching Device is *Concealed* inside the vertical tubular reinforcement of door.

4—**Patented Stamped Steel** (not cast) **Straight-Lift Handle.**—With curled grip which provides ample space for comfortable hand-hold.

5—**Padlocking Attachment with Rubber Silencers.** — Arranged for use of any standard padlock; and in addition, is designed with two rubber silencers so that noise is practically eliminated when handle is raised or lowered.

6—**Reinforced, full looped** (metal formed completely around pin), **five-knuckle, Strap Hinge.**—Attached to door with two Binder Head bolts, permits door to open approximately 180 degrees. Three each on single tier and double tier standard lockers. The hinges are riveted to the door frame directly opposite the lock fingers as this gives added security. Hinge pins are embedded in angle so they cannot be driven out, neither would the removing of hinge bolts make it possible to enter the locked locker without a key.

7—**"Safety" Type Ventilating Louvres.** — (So designed as to prevent anyone injuring themselves on them.) Louvres are 4½" wide, with $\frac{3}{16}$" opening and are 1⅛" apart, center to center.

8—**Reinforcing Plate under Hinge.**—(This is a No. 14 gauge plate welded to inside of door which serves as an added protection against exceptionally rough treatment.)

9—**Improved Lock Fingers with Rubber Silencers** — which reduce noise from slamming of doors.

10—**Automatic Locking Bar Release.** — (Closing of door automatically releases locking bar permitting it to quietly drop into locked position.)

11—**Lock is attached to inside of door, without exposed bolt heads,** —which eliminates all opportunity of chiseling off bolts to gain access with malicious intent.

12—**All Coat Hooks attached with two screws**—making it impossible to twist off by hand or remove without use of tools. Udylite Rust-proof Finish.

13—**Perfect Fitting Top and End Finishing Strips**—attached by means of concealed screws. (By far the neatest and most attractive trim ever furnished for recessed locker installations.)

14—**Attractive Brass Number Plates.** — Each locker furnished with polished brass number plate with black filled depressed numbers $\frac{7}{16}$" high. Plates securely attached with split rivets (not screws) making stealing of them very difficult.

15—**Flush Bottom.**—(Easily cleaned and built strong enough so that standing on Bottom will not injure it.)

16—**Adjustable Rear Legs.**—(Very desirable for leveling up rear of lockers when floors are uneven.)

17—**Adjustable Front Feet.**—(Permit anchoring and taking up of irregularities due to floor unevenness.)

18—**All Screws and Nuts rust-proofed by the Parker Process.**—This precaution eliminates possibility of getting rust spots on clothing.) All outside screws are of the slotless binder head type.

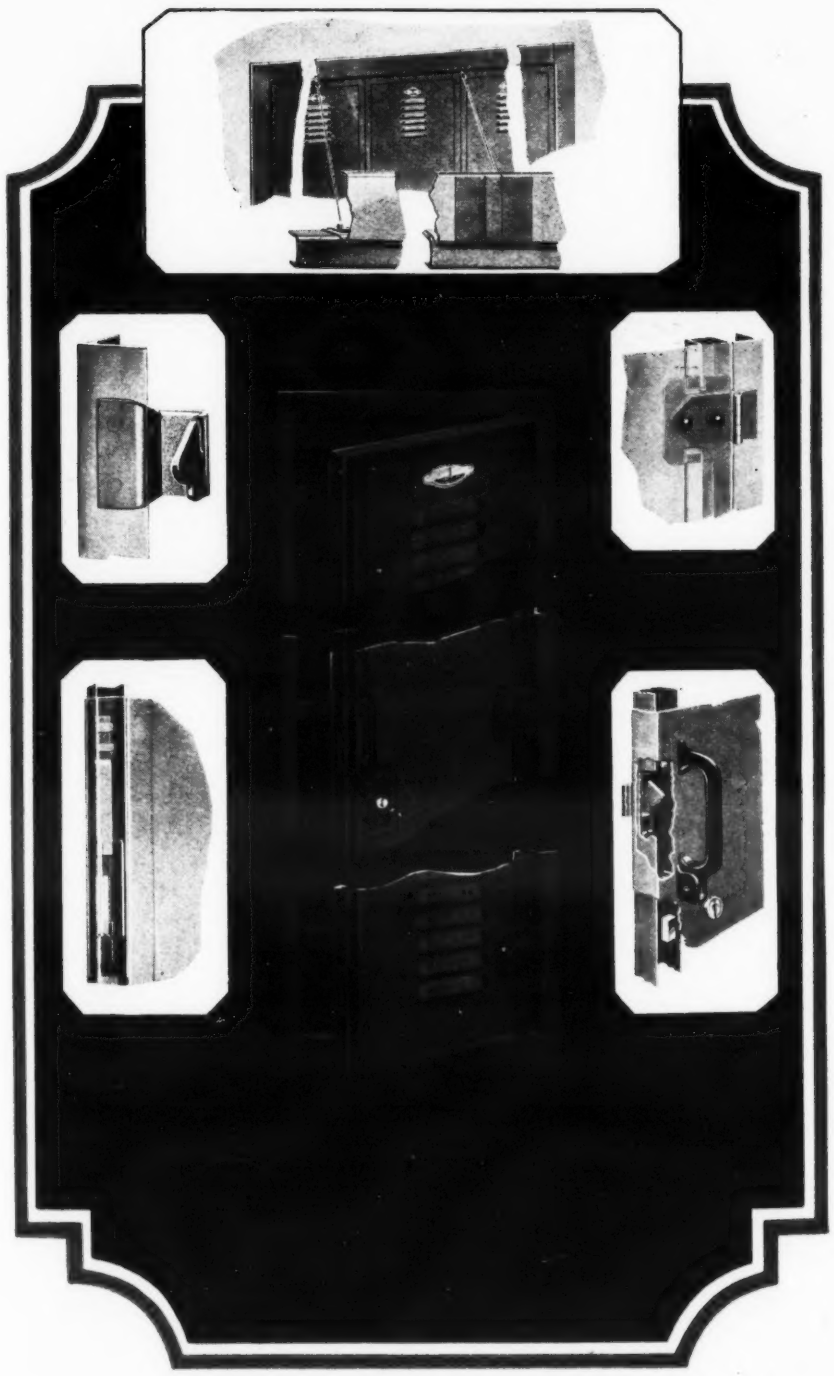
19—**Binder Head Hinge Bolts with Knurl under Head. Two to each Hinge.**—(Hold door securely and do not work loose in every-day use.)

20—**Curled Front Edge on Shelf.**—(No danger of injury by children hanging on them.)

21—**Right Hand Swinging Doors.**—Doors are hinged to swing to the Right (not left) as this is the logical way for right-handed people to open them.

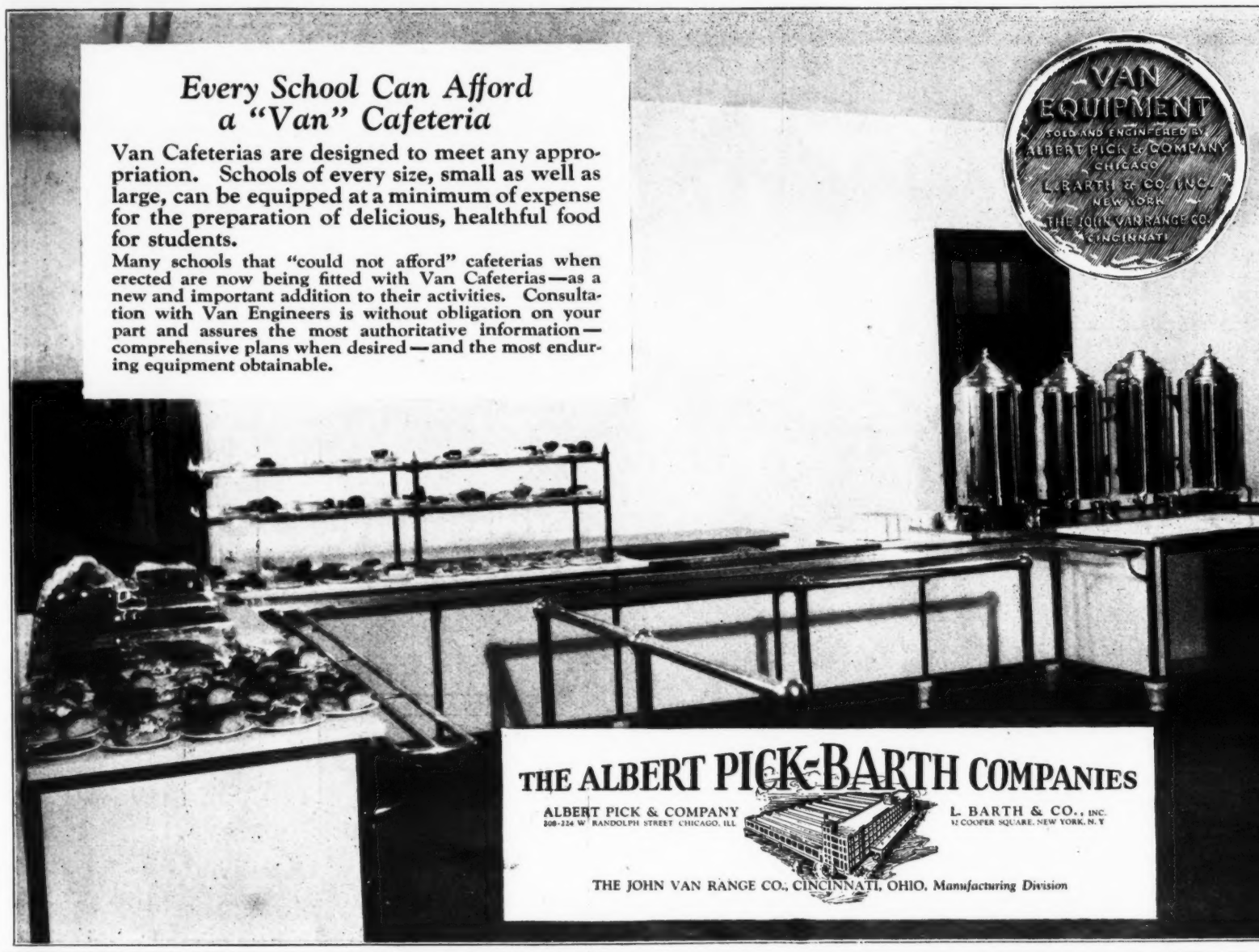
22—**Attractive "Satin Texture" Enamel Finish.** — Baked on at proper temperature to insure finest appearance and durability. (Will stand rigid hammer test without flaking.) All parts thoroughly cleaned before enamel is applied.

23—**Special Equipment.**—In addition to standard equipment such special equipment as vertical partitions, coat rods, closed bases, drawers, umbrella racks, drip pans, mirrors, comb and brush trays, towel rods, golf ball trays, golf bag chains, chapeau hooks, sword clips, gun clips, etc., can be furnished to order.



"No better built than Dumbilt!"

Pric Determine Your Choice


Every School Can Afford
a "Van" Cafeteria
Van Cafeterias are designed to meet any appropriation. Schools of every size, small as well as large, can be equipped at a minimum of expense for the preparation of delicious, healthful food for students.
Many schools that "could not afford" cafeterias when erected are now being fitted with Van Cafeterias—as a new and important addition to their activities. Consultation with Van Engineers is without obligation on your part and assures the most authoritative information—comprehensive plans when desired—and the most enduring equipment obtainable.
VAN EQUIPMENT
SOLD AND ENGINEERED BY
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L. BARTH & CO., INC.
17 COOPER SQUARE, NEW YORK, N. Y.
THE JOHN VAN RANGE CO., CINCINNATI, OHIO, Manufacturing Division

(Continued from Page 117)

Eighteen hundred senior-high-school students moved into the building on February 14, 1928. It is expected that the building will be filled to maximum capacity very shortly. It is planned that 2,500 shall be the maximum enrollment for senior high schools in Dade county.

Site

Dimensions	330 by 650 ft.
Principal frontage	605 ft.

Building

Use	Senior high school
Classrooms	70
Commercial department	1
Laboratory rooms	5
Library reading room	1
Library workroom	1
Study rooms	2
Commercial-art room	1
Fine-arts room	1
Public-speaking room	1
Music room	1
Offices	1
Book storage	1
Matron's room	1
Nurse's room	1
Clinic	1
Pupils' restroom	1
Teachers' restroom	1
Patio	60 by 120 ft.
Auditorium	100 by 100 ft.
Seating capacity	1200
Gymnasium	62 by 90 ft.
Seating capacity	450
Cafeteria	50 by 120 ft.
Seating capacity	600

Design and Construction Materials

Exterior design	Early Sicilian with Norman influence
Exterior facing	Stucco
Exterior trim	Artificial stone
Construction material	Hollow tile and reinforced concrete and steel
Corridor and stair finish	Tile floors
Classroom finish	Wood floors and plastered walls
Auditorium finish	Cement floor with plaster
Gymnasium finish	Special wo
Finish of toilet rooms	Tile floors and wa

Mechanical Equipment

Type of heating and ventilation	Heating of auditori
Electrical equipment	

Cost and Pupil Capacity

Pupil capacity of building	
Number of pupil stations	70 cl
Cost of building	$1 including archit
Cost of equipment	
Total cost	$
Cost per cu. ft.	
Cost per pupil	
Total cost per pupil	
Date contract awarded	February
Date construction started	Februa
Date construction completed	Februa

CAFETERIA KITCHEN

CAFETERIA DINING ROOM

MIAMI SENIOR HIGH SCHOOL, MIAMI, FLA.

with plastered walls
Special wood floors
ors and wainscoting

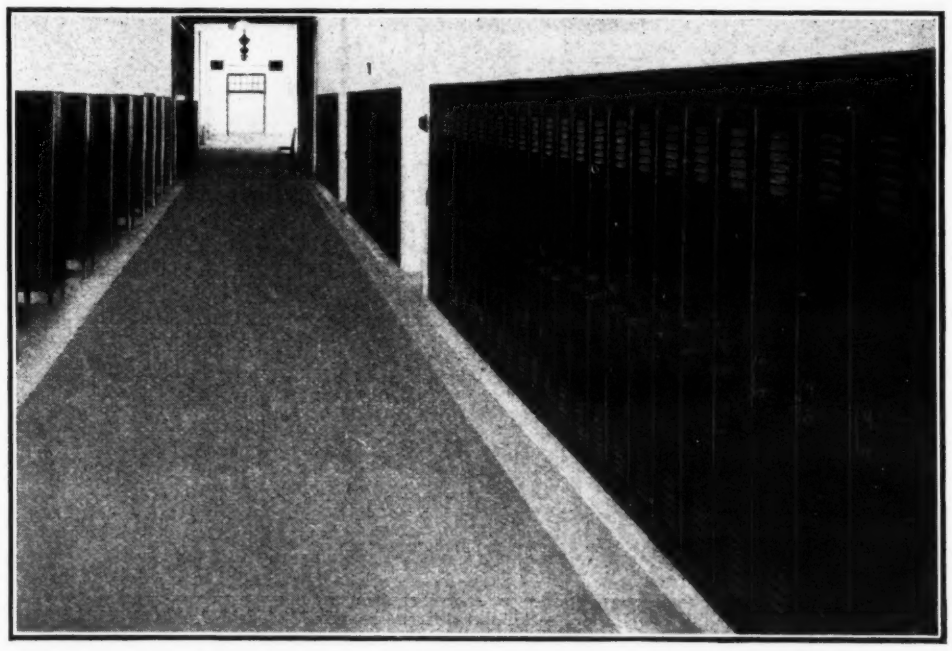
oment

n.....
of auditorium only
.....Complete

apacity

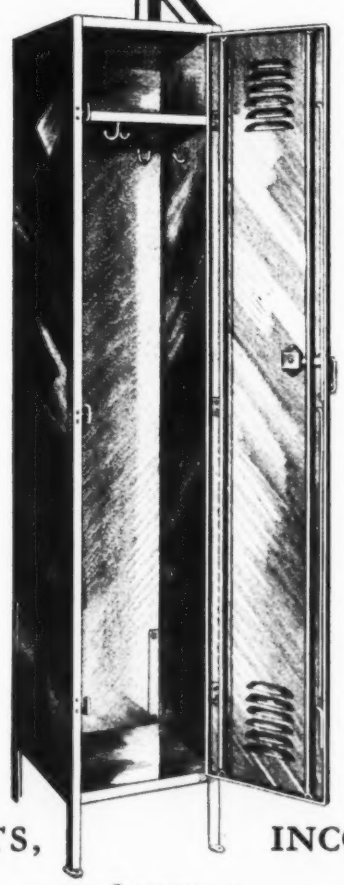
.....2500
.....70 classrooms
.....$1,300,000,
ding architect's fees
.....$150,000
.....$1,450,000
.....30 cents
.....$520
.....$580
..February 24, 1927
.....February, 1927
.....February, 1928

LYON



Steel Shelving . . . Lockers . . . Cabinets . . . Counters . . . Steelart Folding Tables and Chairs . . . General Steel Storage Equipment and Steel Furniture. The Lyon name and trade mark attest the strength, finish, usefulness and durability of Lyon Steel Products

STEEL LOCKERS



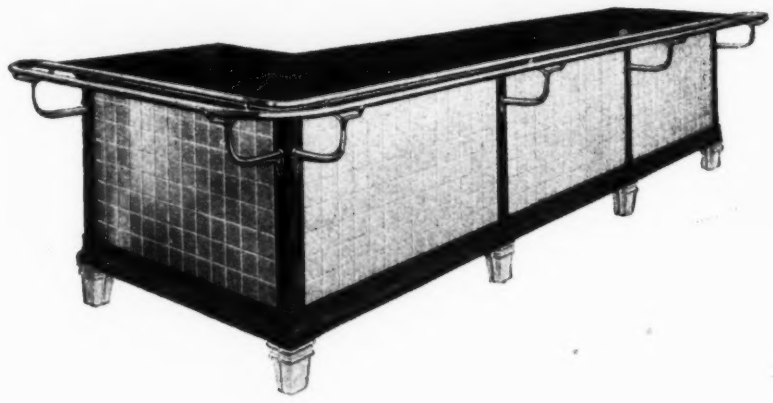
Two steel lockers—Lyon and Durand—have long been favorites with school boards and their architects. And the manufacturers of Lyon and Durand lockers have long been noted for services rendered in the planning of locker installations. Now these lockers are made by one company—a union of the two older companies. You and your architects today have a stronger company back of the locker you prefer and an enlarged service upon which to draw . . . Both Lyon and Durand-type Lyon Steel Lockers are made in several forms—single tier and double tier, corridor and gymnasium styles—enough variety to meet every school requirement . . . Write us about your locker needs. Our service covers the nation. We will give you complete information about the enlarged line and gladly will co-operate with your architect on locker plans for new or for refitted buildings.

LYON METAL PRODUCTS, INCORPORATED, Aurora, Illinois

Successor to

DURAND STEEL LOCKER CO. *Chicago Heights, Ill.*

LYON METALLIC MFG. CO. *Aurora, Ill.*



WRITE for colored circular showing the Siebert Cafeteria counter—a sectional counter shipped knocked-down and set up with screw-driver and a pair of pliers. Practically any panelling material desired. No installing trouble.

Sold exclusively by SANI PRODUCTS CO., North Chicago, Ill.
Selling Organization for Sani Metal and Sani Onyx

Sani Products

COMPLETE FOOD AND DRINK EQUIPMENT

THE STARKWEATHER ELEMENTARY SCHOOL, PLYMOUTH, MICH.

(Concluded from Page 63)

Inclosing the power plant within the school makes possible a presentable rear elevation. The power plant itself is very compact. To get head room and convenient handling of coal, the boiler room is lowered about six feet below the main floor. Toilets and a small bookroom extend over the fan room. Other than this, the building has no basement space. The central location of the plant is both convenient and economical, and the use of low-pressure boilers prevents any possible danger from explosion.

Throughout the work, the cost of upkeep has been carefully considered. The attractive sloping roof provides a recirculating chamber for use in warming up the building on cold winter mornings. This saving alone justified the extra cost, as compared with the usual flat roof. The gain in appearance is very apparent. Stone has been sparingly but effectively used.

The heating system is the split system, with air filtration, humidification, and automatic temperature control. Indicators in the principal's office show the operation of fans and recirculating devices. Chime signals eliminate the usual nerve-racking bells. Telechron clocks are provided with an automatic reset device. All materials are the best available. Strictly fireproof construction of the most permanent character has been used throughout the building. An excellent quality of face brick was used with Indiana limestone trimming. Oak interior finish was used throughout. The building, including architect's fees and equipment, cost $146,015. The equipment was purchased through the architect's office.

The board of education took a personal interest in the work and gave cooperation that meant a great deal to the success of the building. The members of the board included J. W. Henderson, president; Mrs. Ada Murray, secretary; F. J. Pierce, treasurer; C. H. Bennett, and Wm. Sutherland. To the superintendent of schools, Mr. George A. Smith, the architects gratefully acknowledge their indebtedness for his able direction in developing the school plan. The cordial cooperation of the superintendent and the board of education is something of which Plymouth may well be proud.

Mr. Ralph Calder of the architect's staff is responsible for the design of the building. The architects were Malcomson & Higginbotham of Detroit, and the general contractors were the Townsend-Dailey Company of Ypsilanti, Mich. Messrs. Sternfels and Brown of Detroit were the consulting and designing engineers for the mechanical and electrical installation.

The building was ready for occupancy within one year of the selection of the architects.

Details of the plan and construction are as follows:

Construction Data

Date bids received	Feb. 28, 1927
Date contract awarded	March, 1, 1927
Date construction started	March 7, 1927
Date construction completed	Sept. 17, 1927
Date occupied	Sept. 12, 1927
Site	
Dimensions	165 by 250 ft.
Principal frontage	165 ft.
Building	
Use	Elementary
Number of Rooms:	
Classrooms	13
Library	1
Offices	1
Clinic	1
Book storage	1
Restroom	1
Auditorium-gymnasium	32 by 46 ft.
Seating capacity	140
Design and Construction Materials	
Exterior design	Modern American
Exterior facing	Brick
Exterior trimming	Stone
Construction material	Reinforced concrete
Corridor and stair finish	Plaster walls, linoleum floors, and terrazzo treads and risers
Classroom finish	Wood floors and plaster walls
Auditorium finish	Glazed brick
Gymnasium finish	Glazed brick
Finish of toilet rooms	Terrazzo floor and plaster walls
Mechanical Equipment	
Type of heat and ventilation	Forced air and steam
Temperature control	Automatic
Cost and Pupil Capacity	
Pupil capacity of building	560
Cost of building	$139,269.10
Cost of equipment	6,767.00
Total cost	$146,036.10
Cost per cubic foot	35 cents
Cost per pupil	$260.77

STANDARDS FOR ELEMENTARY CLASSROOMS

(Continued from Page 65)

Coatrooms shall be separate from the classroom, except where the classroom is ventilated through the coatroom. They should be heated.

Coatroom doors shall open into the classroom. In addition to required doors, others may lead to the halls or vestibule.

Coatrooms should be at least 5 ft. wide and should be well supplied with hooks (one hook for each pupil, which shall be long enough to allow the wraps to hang clear of the wall), and shelves which can be reached easily by the small pupils.

Coatrooms may be made 4½ ft. wide if two doors are provided—entrance, and exit.

Wardrobes may be substituted for coatrooms in school buildings where inside toilets (q.v.) are provided.

When wardrobes are placed in the classroom, all classroom ventilation shall be made through the wardrobes. Vent stacks shall be of sufficient size to ventilate both the classroom and wardrobe. Separate vent stacks of ample size must be provided in wardrobes if the main flues cannot be carried through the wardrobes.

Sliding or roll doors shall be placed on every section of the wardrobe and shall be provided with a check which shall not allow the doors to come nearer than 6 in. to the floor.

(Continued on Page 125)

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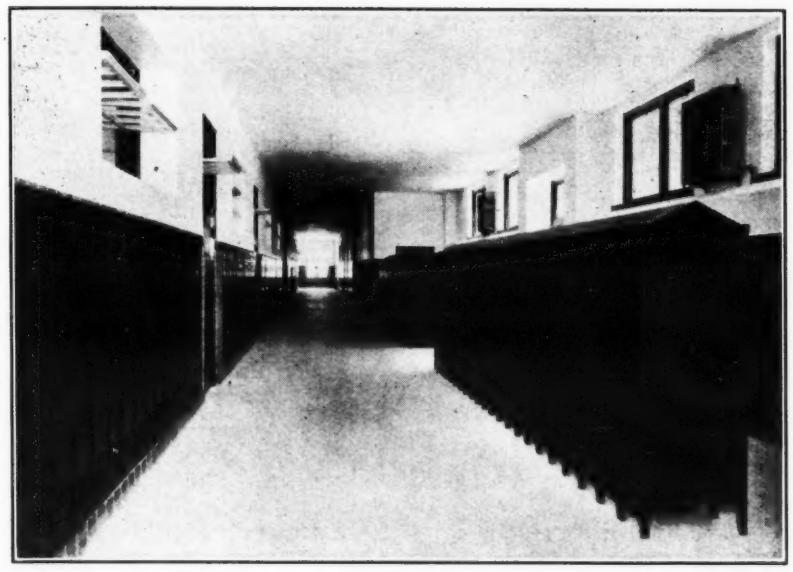
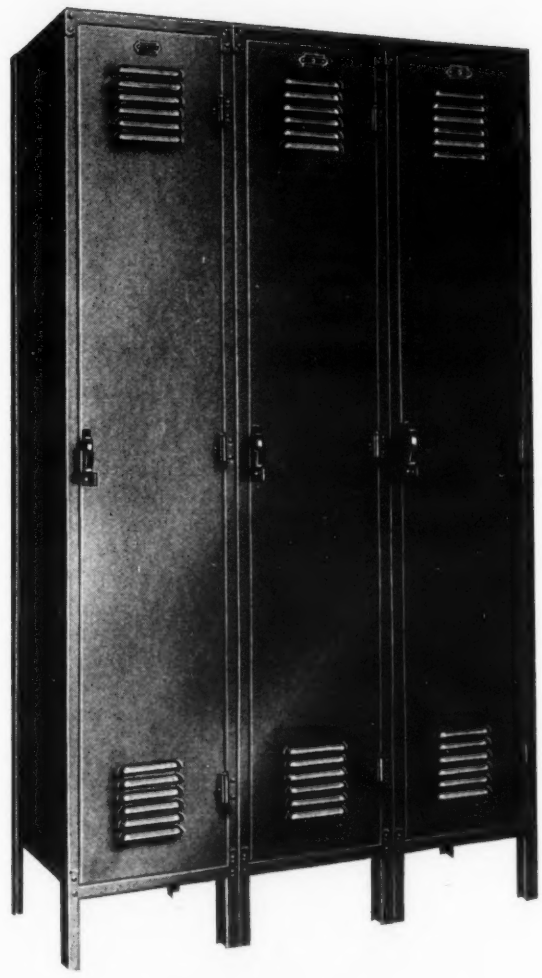


Installation of Berloy recessed and sloping top lockers at Woodrow Wilson High School, Dallas, Texas.



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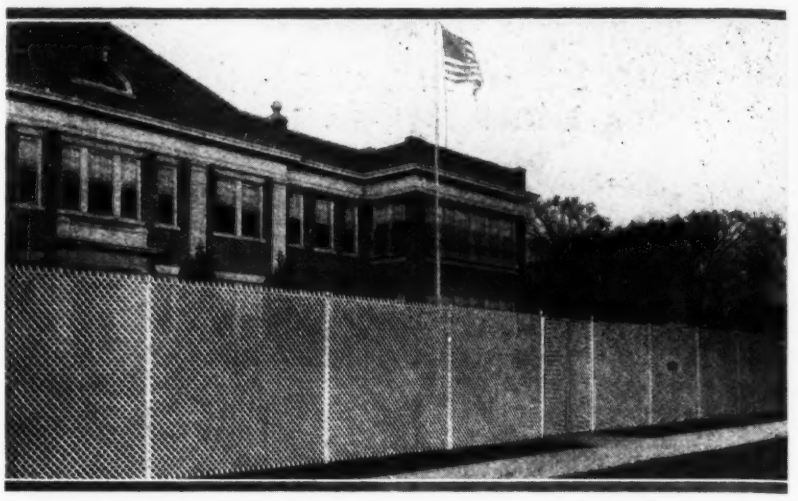

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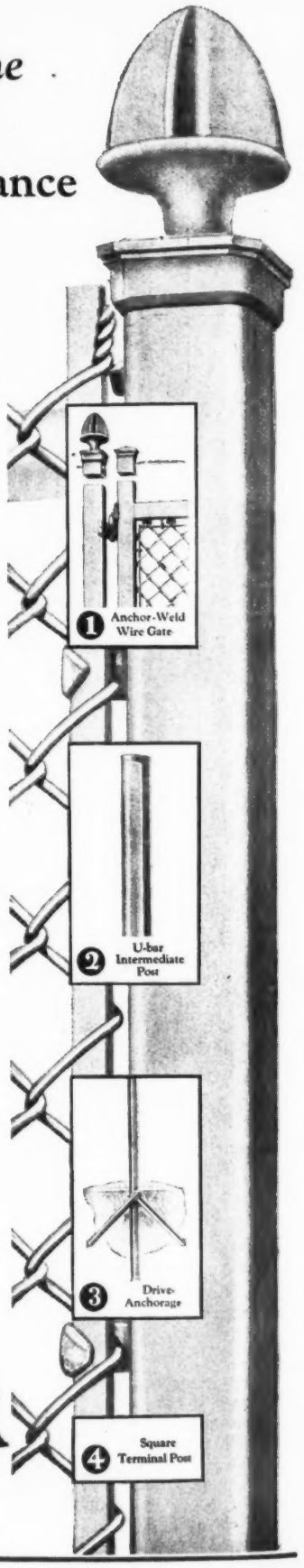

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(Continued from Page 122)

Not more than two rows of hooks should be provided in each section.

Individual sections, 7½ by 10 in., for wraps with shelf above and umbrella and overshoe racks are recommended.—Pa., 1917, III, 9, 10.

Utah. For elementary schools, one wardrobe or cloakroom must be provided for each classroom and adjacent to the classroom it serves. Wardrobes may be located in the corridor or in the classroom. Wardrobes shall have the doors provided with openings or louvres for ventilation or other equal ventilation shall be provided.—Utah, Chap. II.

Virginia. All rooms accommodating elementary grades shall be provided with a wardrobe or cloakroom containing two shelves, opening directly into the classroom with adequate provision for ventilating such wardrobe or cloakroom and with no connection from wardrobe or cloakroom to corridor.—Va., 1928, XI (*a*).

A. Area of Windows

Connecticut. The glass area shall be not less than one fifth of the floor area of the classroom.—Conn., 1926, Sec. 951.

Delaware. The ratio of actual window area to floor area shall not be less than 20 per cent.—Del., 1927, p. 20.

Minnesota. The glass area of all windows of elementary schoolrooms shall equal one fifth of the floor area of the room.

Nebraska. The window area should be equivalent to one fifth of floor area.—Nebr., 1927, p. 27.

Utah. In classrooms there shall be at least 1 sq. ft. of glass area for every 6 sq. ft. of floor area if the room is lighted from the left side only. If lighted from the rear as well as from the left, the glass area shall be at least one fifth of the floor area.—Utah, 1927, Chap. II.

Virginia. The total net glass area must be not less than one fifth of the total floor area. If trees or buildings are located near the proposed building, the direct light from the sky shall be unobstructed above a line drawn from the window stool, forming an angle of 25 degrees with the horizon.—Va., 1928, IX (*b*).

Wyoming. Glass area one sixth of floor space.—Wyo., 1921, p. 5.

B. Artificial Lighting

Delaware. Electric wiring shall be installed according to the rules of the National Board of Fire Underwriters. Semidirect fixtures shall be installed with an illumination of 5-ft. candles on the working planes of the desks or tables without objectionable glare or shadows.—Del., 1927, p. 23.

Minnesota. All wires, fittings, materials, installation, and construction work shall conform to the latest requirements of the National Electric Code.—Minn., 1928, Sec. 88.

Wisconsin. Each classroom of standard size, (32 ft. long by 23 ft. wide) shall be equipped with at least 6 artificial lighting units symmetrically spaced. Where electric service is available at least one circuit of 15 amp. capacity shall be supplied to each standard classroom. — Wis., 1925, Order 5620.

7. ILLUMINATION

A. Location of Windows

Connecticut. Windows should be arranged to afford unilateral lighting in the long side of the room. Head of window should not be more than 12 in. below the ceiling and sill not less than 36 in. above floor.—Conn., 1926, Sec. 951.

Delaware. Windows shall be placed on the long axis of the room. Light shall come over the left shoulder of the children as they are seated. At the front end of the window side of the classroom at least 5 ft., and not over 7 ft., of dead wall space shall be provided for elementary classrooms. The heads of windows shall be square and within 6 in. or less of the ceiling. No large mullions shall be used.—Del., 1927, p. 21.

Minnesota. 1. Buildings shall be so placed that each room, except such as may be herein specified, shall receive sunlight during some part of the day. Laboratories, manual-training rooms, rooms for mechanical and free-hand drawing, and other rooms not continuously used for recitation and study, may be lighted from the north. Light from the east is most desirable. Light from the west holds second place. Light from the north as well as from the south should be avoided in schoolrooms, and study rooms.

2. All rooms shall be lighted from one side only, whenever the width of the room does not exceed 24 ft., except that workrooms, gymnasiums and other rooms not used as study rooms may be lighted from two sides.

3. No window sill shall be less than 3 ft. from the floor in any elementary classroom.

4. In elementary schoolrooms, the distance from the top of the window to the floor shall be not less than one half the width of the room, measured from the window to the opposite wall, except that rooms of greater width may be approved, provided that the glass area is adequate and the light is satisfactorily distributed by means of skylights, or some equally efficient means.—Minn., 1928, Sec. 44.

Nebraska. The light should come from the left or the left and the rear of the pupils after they are seated. The windows should be grouped on the left side and should extend almost to the ceiling. The distance from the floor should be 3 ft. or 3 ft. 6 in. The distance between the front wall and the first window should not be less than 6 ft. The rear light should be from small windows placed 6 ft. from the floor.—Nebr., 1927, 27, 28.

Virginia. All schoolhouses shall provide for the admission of light from the left or in special cases from the left and rear of the pupils. Where practicable the center of the windows should be off center of the classrooms with a distance of not less than 4 ft. from the partition at the teacher's end of the room to the windows. The window at the rear of the classroom may come near the rear partition with little wall space. The window stools except in special cases shall be not less than 3 ft. 2 in. nor more than 3 ft. 6 in. above the floor. There should be no transom bars to the windows. The mullions should not be over 3 in. wide except in special cases. All windows should be of the double-hung type or an approved modification thereof, or if steel sash are used they shall be of the reversible hinged type ventilator, opening out at the top, the bottom ventilator opening in.—Va., 1928, IX, (*a*), (*d*), (*e*), (*f*).

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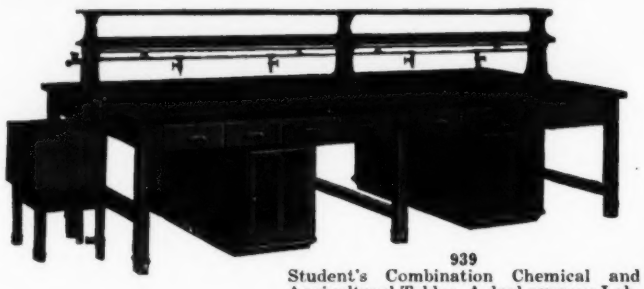

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Top of sash shall be not more than 1 ft. below ceiling, the nearer the ceiling the better. Brick mullions between windows will not be approved except where necessary to carry out the architectural design or style.—Va., 1928, X (*c*), (*d*).

Wyoming. Light from left side or left and rear; blinds for windows.—Wyoming, 1921, p. 5.

8. BLACKBOARDS

A. Area and Kind

Delaware. Slate blackboards shall be used, placed on the front and on the right-hand walls of the room. They shall be 4 ft. wide.

Minnesota. Each elementary schoolroom must have at least 100 sq. ft. of substantial blackboard, preferably slate. Composition boards or slated walls, are, as a rule, unsatisfactory, and will be permitted only upon special request by the school board. The width of the blackboards should be not less than 42 in.—Minn., 1928, Sec. 19.

Nebraska. Twenty lineal feet of blackboard is required. Slate is the best and cheapest in the end. A good composition board will be accepted. The board should be 3 ft. 6 in. wide.—Nebr., 1927, p. 33.

New Jersey. All available space in the front of the schoolroom and on the right-hand side of pupils should be given to blackboards.—N. J., 1925, Sec. 14.

New York. Natural black slate having a clear surface with what is known as hand-shaved, or rubbed, velvety smooth finish is the most satisfactory and permanent material for blackboards. Each classroom and recitation room should have blackboards on the walls in front of and on the right of the pupils, aggregating approximately 40 running feet for a 40-pupil room, and in proportion for smaller rooms. Blackboards should be provided for study halls, laboratories and other special rooms as may be required by the character of the work conducted in these rooms.—N. Y., 1925, p. 14.

Pennsylvania. Not less than 80 sq. ft. of blackboard shall be placed substantially upon the walls of each classroom.

Blackboard should be not less than 3 ft. 6 in. wide. A 4-ft. width will prove to be more satisfactory and is suitable for accommodating all grades. Pa., 1917, III, 7 (*a*), (*c*).

Virginia. Each classroom shall be provided with a minimum of 3 sq. ft. of blackboard per pupil. secured to the front and right side of the classroom. Width of blackboard 42 in.—Va., 1928, X (*f*).

Wyoming. Blackboard at least 20 by 3 ft. 6 in.; material slate, hyloplate, or equivalent of latter.—Wyo., 1921, p. 5.

B. Height Above Floor

Delaware. Height of chalk rail from floor:

First and second grades	24 in.
Third and fourth grades	26 in.
Fifth and sixth grades	28 in.
Seventh and eighth grades	30 in.

—Del., 1927, p. 20.

Minnesota. The height of blackboards from the floor shall be, for primary rooms, not more than 24 in.; for intermediate rooms, 26 to 28 in.; for grammar grades, not more than 30 in., except that the front board used mainly by the teacher may be from 30 to 32 in. from the floor.—Minn., 1928, Sec. 19.

New York. Slate blackboards are produced and carried in stock in widths of 3 ft. 4 in.; 3 ft. 6 in.; and 4 ft. The width of 3 ft. 6 in. is recommended for general use. The proper height from the floor to the chalk trough is:

Kindergarten	24 in.
First, second, third grades	24 to 26 in.
Fourth, fifth, sixth grades	28 to 30 in.
Seventh, eighth grades	36 in.

—N. Y., 1925, p. 14.

Pennsylvania. Blackboards shall be placed as follows: Primary rooms—the base of the board shall be not more than 21 in. above the floor.

Elementary rooms—the base of the board shall be not more than 25 in. above the floor.—Pa., 1917, III, 7 (*b*), (1), (2).

Utah. The height of chalk rails from floor shall be as follows:

First to fourth grades	26 in.
Fifth to sixth grades	28 in.
Seventh and eighth grades	36 in.

—Utah, 1927, Chap. II.

Virginia. The height of chalk rail should be as follows:

First and second grades	26 in.
Third and fourth grades	28 in.
Fifth to eighth grades	31 in.

—Va., 1928, X (*f*).

9. COLOR OF WALLS AND CEILING

Delaware. Color scheme: Walls light buff, very light cream, or light gray. Ceiling white or extremely light cream. Dado brown.—Del., 1927, p. 20.

Michigan. Tinted or painted walls are better than paper walls. In every case the colors should be light. The ceiling should be of a lighter color than the walls. Colors should be selected from the following combinations:

1. Side wall—cream
   Ceiling—ivory
2. Side wall—silver gray
   Ceiling—pearl gray
3. Side wall—buff stone
   Ceiling—cream

—Mich., 1923, p. 9.

Minnesota. All walls should be of a light color, but not white. A light gray or light tan are the most suitable colors for schoolroom walls. In all cases the ceiling shall be ivory white or cream, to facilitate the reflection of light. — Minn., 1928, Sec. 45.

Nebraska. The most popular combination is a cream color for the ceiling and tan for the walls or cream for the ceiling and pale green for the walls.—Nebr., 1927, p. 28.

North Dakota. The walls should be a light color, but not white. A light gray, light tan, chrome yellow or light olive green are the most hygienic colors for schoolroom walls. In each case the ceiling should be a lighter tint than that of the wall; with tan walls, a cream ceiling; with gray walls, a pearl ceiling.—N. Dak., 1926, p. 12.

10. SHADES

Delaware. Shades—ecru.—Del., 1927, p. 20.

Minnesota. Translucent shades shall be used for controlling light. Rooms in which it is desirable to exclude all light may, in addition, be equipped with opaque shades. Care should be taken to have

(Concluded on Page 128)

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MUSKEGON, MICHIGAN

(Concluded from Page 126)

color of shades harmonize with the color of the walls.—Minn., 1928, Sec. 45.

11. LIBRARY

Minnesota. An ungraded elementary-school building shall contain a library.—Minn., 1928, Sec. 7.

A graded elementary-school building shall contain a library.—Minn., 1928, Sec. 8.

Utah. Buildings should be provided with a library room or bookroom. When this room is used for community purposes, it should be provided with access from the outside or entrance from the vestibule.—Utah, 1927, Chap. II.

12. MISCELLANEOUS

Delaware. A cork bulletin board 4 by 4 ft. shall be placed in each room.—Del., 1927, p. 20.

Utah. A teacher's closet and bookcase shall be provided in each classroom.

All rooms that may be definitely assigned to the elementary grades should be provided with suitable tacking or pinning space.—Utah, 1927, Chap. II.

RULES AND REGULATIONS FOR A SMALL HIGH SCHOOL

(Concluded from Page 96)

holidays. Other holidays shall be such as may be declared by the board.

X. Auditorium

1. Since the state law prescribes that "boards of school trustees may grant the use of school buildings or grounds for public, literary, scientific, recreational, or educational meetings, or for the discussion of matters of general or public interest upon such terms and conditions as said board may deem proper; provided, however, that said use shall not be inconsistent with the use of said buildings or grounds for school purposes, nor interfere with the regular conduct of schoolwork, nor be granted in such a manner as to constitute a monopoly for the benefit of any person or organization; and provided, further, that no privilege of using said buildings or grounds shall be granted for a period exceeding one year, such privilege being renewable and revokable in the discretion of the board at any time," the board may permit the use of the school building by the public on application to the board. Unless meetings are not entirely for the discussion of public and community problems, the board may prescribe a fee to cover cost of janitor service, heat and light.

XI. Miscellaneous

1. All employees of this district are insured by the district in the state-compensation-insurance fund against accidents or injuries received while on duty, consequently whenever an employee of the board is injured, a report of this accident may be made immediately to the principal so that he may report it to the state-compensation-insurance fund.
2. Pupils are not insured under this fund, and the board assumes no responsibility for injuries to students unless injuries shall be caused by negligence on the part of the board. A pupil who uses a power grinder or any welding apparatus shall wear goggles provided by the board. All power machinery shall be properly guarded.
3. Agents are prohibited to solicit or offer for sale any sample stocks on the school premises. Representatives of textbooks, publications, and school-furnishing-supply houses are in general exempt from these prohibitions.

INDEX OF SCHOOL-BOND PRICES

(Concluded from Page 68)

hence, but it does seem to us that it is hardly likely that they will be any less favorable than they are at the present."

The high bond issue reported in August sold for 6.23 per cent, and the low issue for 4.04 per cent. August is the first month, for a long time, in which no issue was reported sold for less than 4 per cent. The lowest interest rate reported was in Illinois, and the highest was in Florida. The state indexes did not change relative positions to any great degree. Florida still has the highest state index, and Massachusetts the lowest. The Florida index for August was well above 6 per cent, and Massachusetts was slightly above 4 per cent.

The total amount of school bonds sold during August was $8,149,525. This is the smallest amount sold in any month, for many months. The July sales of $15,600,000 were small, but August sales are only about one half of the sales in July. The number of sales dropped, but not to as great a degree as the total sales. This means that the average sale was smaller, and indicates that the larger cities which follow the market more closely have decided not to sell bonds at this time.

Table IV shows the rise in interest rates on long-term Federal government bonds during the past few months. The final rate for July is higher than the rate for any month during the past twelve months, and the preliminary calculation for August is slightly higher. It will be recalled that our school-bond index is higher for August than for any month during the past twelve months.

Table V shows that stock prices are back up to the high level of May, and that the price of bonds is still well under the year's high. As low bond prices mean high interest yields, it is evident that the yield to the investors on bonds is somewhat higher than it was. The yield in March was 4.37 per cent; the estimate for September is 4.53 per cent.

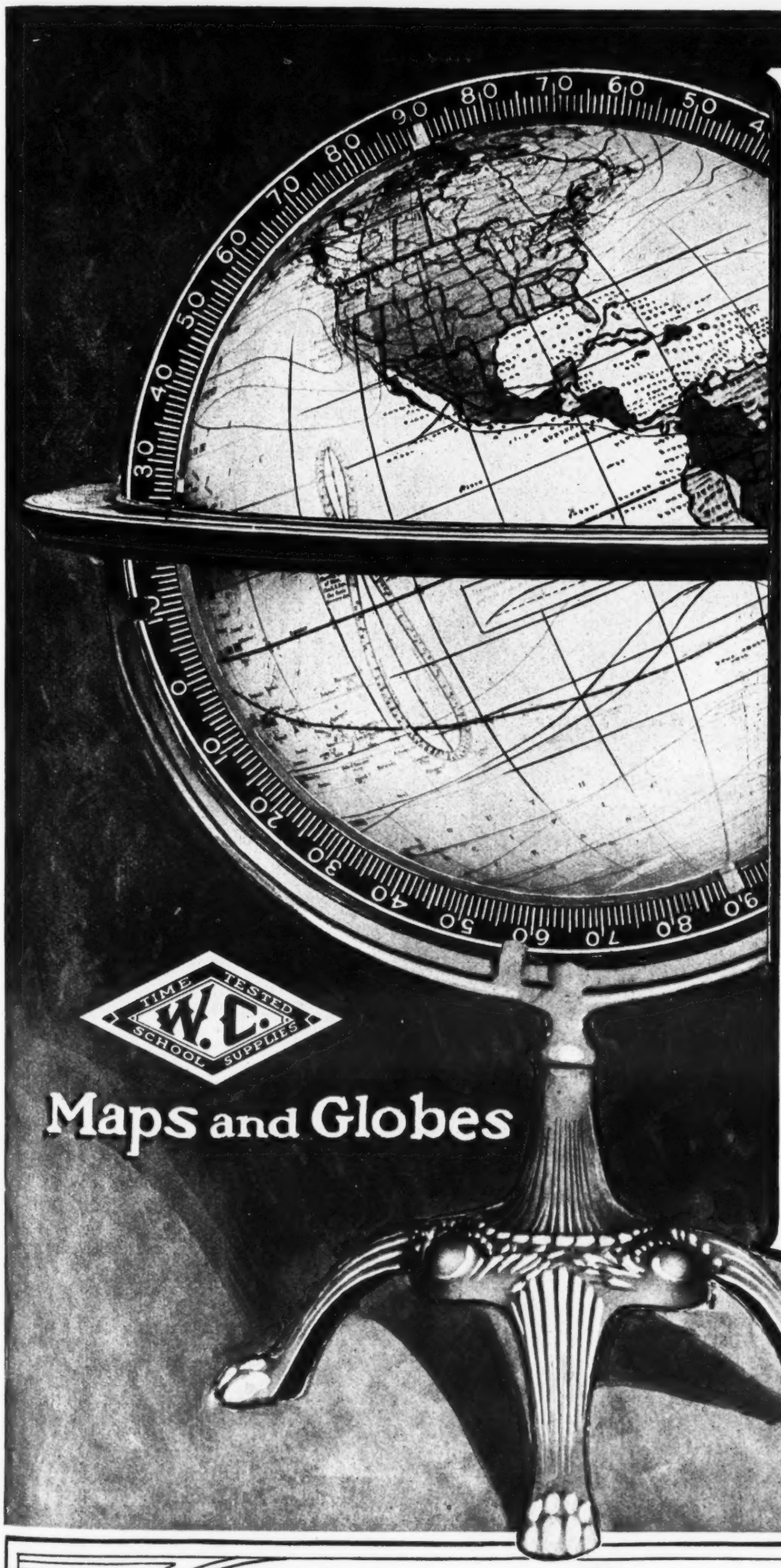
Table VI shows that commodity prices are still rising and have reached a high point for the past twelve months. The cost of building material continues to rise even more rapidly than the price of all commodities. The price of buildings should be considered in deciding when to issue school bonds.

—Dr. L. W. Smith, superintendent of the township schools of Joliet, recently became superintendent of schools at Berkeley, Calif., to succeed Dr. H. B. Wilson.

—Mr. Raymond E. Pinkham, formerly principal of the junior high school at West Orange, N. J., has been elected superintendent of schools at Weehawken. Mr. Raymond E. Hearn has been made acting principal of the West Orange school, to succeed Mr. Pinkham.

—Mr. Lewis C. Tidball, commissioner of education for Wyoming, recently attended the summer session of the University of Washington, where he completed advanced work for a doctor's degree.

—Mr. L. A. Packard has been elected superintendent of schools at Port Huron, Mich., to succeed H. A. Davis, who has resigned to enter business.



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Do you still clean your erasers the old way — by beating them? You know that this method is injurious to the health of the teacher, pupil, janitor or whoever the job falls to. The flying chalk dust dries up the throat, smarts the eyes, and makes you feel dusty, dirty, grimy, and sick. No one can possibly enjoy work that is so disagreeable. Clean erasers mean clean blackboards. And clean blackboards improve the morale of the entire class.

Why not rid your school of this unhealthy and unpleasant job? Install a Little Giant Eraser Cleaner. It is simple and easy to operate. Simply connect to any light socket, pass the erasers over the revolving brush, and the chalk dust is drawn by suction into a dustproof bag. The Little Giant cleans 750 erasers per hour and is built to keep on cleaning them for many years.

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STATE STATUTE BARS NEW YORK CITY TEACHERS' INJURY CLAIMS

Teachers of New York City who sustained injuries while in the performance of school duties more than six years ago, have no claims to payment of expenses incident thereto to be paid by the board of education, according to city and school officials.

The opinion was expressed both by the corporation counsel and the board of estimate that the state statute would bar all claimants from collecting whose claims date prior to six years ago. With the exception of seven of the claims figuring in the litigation by the federation of teachers' associations, all of the other claims are null and void under the statute, which outlaws claims dating back more than six years.

The total claims for injuries sustained in the course of duty are estimated to reach 20, and the amount of the claims at less than $3,000. In the past, the board of education has accepted the claims, examined the facts of the cases, and upon approval has sent them to the board of estimate. Thus, no record of the exact number has been kept other than filing of them as they were made.

Recently, a new policy has been adopted and a sort of claims division created in the office of the auditor of the board. All claims are accepted by the board of superintendents and are referred to the auditor. The auditor investigates them, tables them, and refers the cases to the corporation counsel for an opinion upon their validity. If a favorable decision is received from the legal department, the claim is presented to the board for approval and transmitted to the board of estimate for ratification and payment.

TEACHERS AND ADMINISTRATION

—Commissioner Charles H. Elliott of New Jersey has reported to the state board of education that 1,146 of 1,519 applicants for admission to the normal schools passed the May examinations. He recommended that the test be made more difficult so that more students will not be admitted to these schools than can be absorbed as teachers. His suggestion that the examination include American history and an intelligence test was taken under advisement.

—The Wisconsin state teachers' retirement fund has suffered a loss through the failure of the Wisconsin Mortgage & Securities Company and the Bankers' Joint Stock Land Bank of Milwaukee. Both these firms, in which the state retirement funds were in part invested, have been declared bankrupt, and while it appeared at first that the sum of $700,000 would be lost, it appears now that the loss will not exceed $150,000. The fund has a total of $15,000,000 invested in various types of securities.

The basis of the liquidation of bonds to the amount of $175,000, which is the investment of the retirement fund in the Wisconsin Mortgage & Securities Company, has been arranged. The retirement fund to be paid immediately is 25 per cent of the sum, or $43,750 in cash and $87,500 in common stock of the Farmers' Sales Mortgage Corporation, the company which has taken over the assets of the Wisconsin Mortgage & Securities Company.

The terms on which the Bankers' Joint Stock Land Bank settlement will be arranged have not been decided, but it is expected that even a larger proportionate cash payment on the bonds to the amount of about $300,000 held in that company will be realized. The outlook for a favorable initial cash payment on the bonds is good.

—The school board of Fargo, N. Dak., has adopted new rules governing sick leaves for teachers. The rules, which were adopted upon the recommendation of the teachers' committee, are as follows:

In the case of absence, due to personal illness, half pay up to the amount of 10 days' full pay shall be allowed during each school year. Teachers who have been with the Fargo system for more than five years shall be credited with unused portions of their absence allowance for the five years immediately preceding. This shall then become available if needed on the half-pay ratio.

In case of death in the immediate family of the teacher, three full days' pay shall be allowed and if the funeral is outside the city two additional days may be allowed for traveling. Absence on account of death will not be deducted from the personal-illness allowance.

TEACHERS' SALARIES

—The Louisiana legislature, at its last session passed a law which makes it mandatory to equalize the salaries of men and women engaged in teaching in the public schools of the state. Under the law, parish school boards are given four years in which to make the change, so that by October 1, 1932, there will no longer exist any discrimination because of sex in the compensation of teachers in Louisiana.

The law contains a provision which states "it is not the purpose of the law to require or direct the reduction of any salary or salary schedule at present in force."

—The Michigan Education Association is at present engaged in working out a new retirement fund system for the teachers of the state. A joint committee of representatives of state teachers' organizations is at work upon the preparation of a tentative retirement-fund law. A brief summary of the tentative plan has been submitted to the teachers of the state for their criticism.

—Randolph, Mass. The school board has discontinued a rule which required that resident students have one year's training in outside schools before being eligible for positions in the local school system. The change permits graduates of the normal school to enter the schools without outside experience in schoolwork.

Benld Adopts Salary Schedule

Upon the recommendation of Supt. C. F. Burgess, the school board at Benld, Ill., has adopted a new salary schedule based upon normal and college training. Under the schedule, all grades from 1 to 2 will be called the primary department, and teachers in these grades must have some experience, as well as one year's work in a university, normal school, or college. Teachers in this group will begin at a minimum salary of $82 per month, and will advance at the rate of $5 per month for each year of service up to $95 at the end of a three-year period. In order to receive a salary of $100 a month, such teachers must have four years of teaching experience, or must have completed one year's work in a normal school, private school, or university, with at least one term in primary work. The maximum salary for teachers of this group will be $105 per month.

In the group covering grades 2 to 6A, teachers will begin at a minimum of $80, and will advance at the rate of $5 per month for each year of service up to $95 at the end of a four-year period. The maximum salary of $97.50 will be paid each teacher attaining the fifth year of consecutive service. Teachers of these grades in order to be promoted must have had four years' experience, or must have completed a year's work in a normal school.

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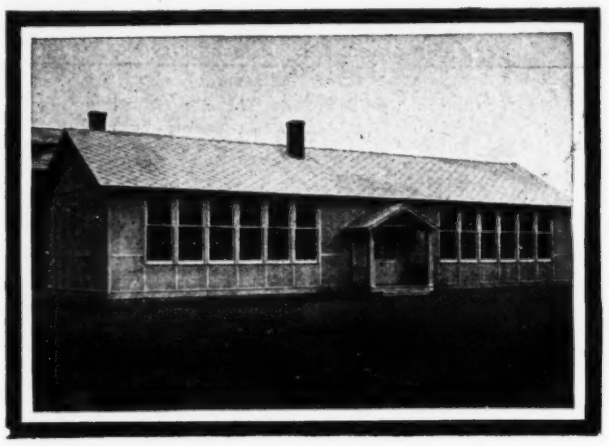

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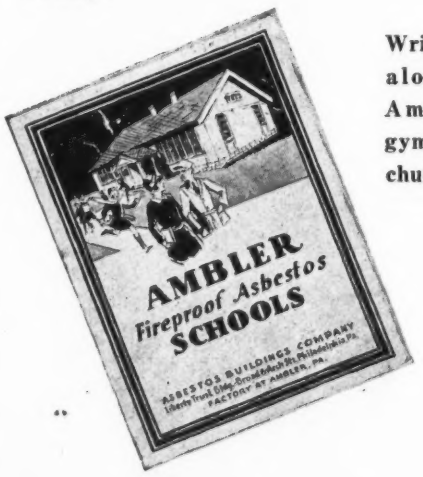

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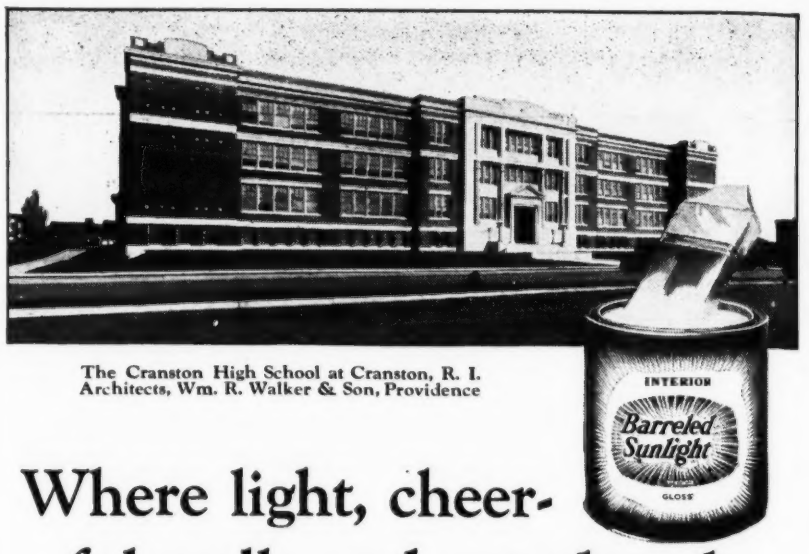

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Architects, Wm. R. Walker & Son, Providence

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For places where less than the full gloss is desired, Barreled Sunlight Semi-Gloss is widely approved. It has a still softer lustre than the Gloss and washes readily.

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U. S. Gutta Percha Paint Co., Factory and Main Offices, 44-J Dudley Street, Providence, R. I.; New York—420 Lexington Avenue; Chicago—659 Washington Blvd.; San Francisco—156 Eddy Street. Distributors in all principal cities. Retailed by over 7,000 dealers.

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—DUDLEY NEWS—

How Leading Schools Solve Their Locker Problem

PHILADELPHIA OFFICIALLY adopts the Dudley Lock. Board orders 12,600 combination locks for new high schools, making school system 100% Dudley.

UNIVERSITY OF ILLINOIS strong for the Dudley. Ben Crackle orders 3,500 for Gym and Stadium lockers.

Dean Jordan insists on Dudley exclusively for engineering students.

HAMILTON, OHIO, DECIDES TO modernize its locker equipment. Supt. Joyce installs hasps on High-School lockers, and orders 1,934 Dudley locks.

LARGEST HIGH-SCHOOL FIELD house in America opens with 3,000 Dudley combination locks on its lockers. Township High School in Oak Park, Ill., holds to its motto, "The Best Is None Too Good for Us."

TEN THOUSAND DUDLEY LOCKS go to Detroit Schools for fall requirements. The Board of Education is an old Dudley customer.

THE DUDLEY IS MORE POPULAR than ever in Michigan. Flint orders 3,000, Lansing 2,000.

MILWAUKEE NORMAL PUTS FIFteen hundred hasps on lockers and orders like quantity of Dudleys.

YOST DECIDES ON DUDLEY. Wants best possible locker lock for the new University of Michigan Field House. Orders 1,682 as a starter.

OHIO STATE UNIVERSITY ORders over four thousand Dudley locks for Gym and Mechanical Drawing. They have been Dudley lock users for many years.

RICHMOND, CALIF., GETS 2,860 Dudley combination locks for their splendid new High-School building.

PASADENA, CALIF., REQUIRES 2,000 additional Dudley locks for fall term.

DUDLEY NEWS is *good* news to any school still fussing with keys and antiquated locker systems.

The Dudley Combination Lock is now the standard locker lock of America.

Send *today* for your sample lock for free examination, also our easy self-financing plan. No obligation on your part.

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THE STORY OF A SCHOOL FIGHT

(Continued from Page 36)

ber of the faculty who was not under fire by one faction or another. So much partisanship was displayed, and so many conflicting tales were told, that one director finally suggested an open forum, where everyone could bring his charges in the presence of the teachers, the superintendent, and the board. Brown rather welcomed the idea, but it was squelched by a majority of the board.

A secret meeting was held by the board, at which Brown was not present. Without consulting Brown, the board reelected all the teachers except Davis, who had made himself extremely unpopular. Then, at the end of a stormy session, Brown was also reelected, with a large increase in salary.

One board member, in discussing the situation, remarked: "Mrs. Gray is at the bottom of all this trouble. She hates Brown and she is going to make life miserable for him. If it hadn't been for her, he would have had smooth sailing. And she will pull the same stuff again next year. But she has my vote; I'm in business and I can't affard to antagonize her and her crowd."

Such a statement illustrates an attitude that is fatal to good school administration.

Davis, when he heard that he was not to receive a contract, went into open rebellion. He devoted time in his recitation periods to open slander of Brown and the teachers who were loyal to him. When some of his students protested, he informed them that he no longer wanted them in his classes.

Brown knew of the situation, but there was nothing he could do about it. He could not discharge Davis. The board was paying him as superintendent a thousand dollars more than any teacher; yet it would not support him when it knew that Davis was taking class time to preach insurrection. Two members of the board, hostile to Brown, welcomed this situation. The other three members deplored it, but were fearful of the probable effect upon their businesses if they asserted themselves. They had been ready enough to meddle in trivialities; but now that they were confronted by a situation which demanded action upon their part for the welfare of the school, they were unwilling to act.

Davis continued to become more arrogant. Finally he went a step too far, and one of the teachers whom he had discussed in his classes gave him a beating. This precipitated the climax of the trouble. All of the students who had been friendly to Davis revolted and refused to attend classes. Brown suspended them in a body.

The board met, and, after a heated discussion, closed the school. Brown was discharged without a hearing. The director who had voted to retain Mrs. Gray because he feared the effect upon his business if he voted against her, now, for the same reason, voted to discharge Brown.

This affair is hardly typical of school-board squabbles, even in small towns. It is hard to find a school fight that can be labeled as "typical." There are too many angles to be considered. But it is similar to controversies that are going on in various small towns; and it illustrates several pernicious school-board evils.

The least that can be said of such fights is that they are a sad waste of time and money. And the children are the heaviest losers.

In this instance, the work of the school year was seriously interfered with, so that the expenditures of tax money were in good part wasted by a sordid, avoidable fight carried on under the eyes of impressionable children.

Obviously, the responsibility must rest with the board. It is not fair to lay the blame upon Brown; he may have lacked ability as a politician and he probably was too direct in method, but it must be remembered that he was rendered powerless by the board itself. Mrs. Gray could have been brought to terms or discharged upon thirty days' notice. The same applies to Davis. The fact that Brown's record justified his reemployment makes the failure of the board to support him in checking insubordination a gross neglect of duty.

In encouraging parents to bring their troubles before it, the board was guilty of unethical conduct. Individual members, or the board as a whole, have no right to interfere in such internal affairs of the school. They may do so only in a judicial capacity when it is clear that a student or a parent has been unable to get fair treatment at the hands of the superintendent.

Insubordination among the students would have stopped if the board had upheld Brown's disciplinary measures. Only gross incompetence or unfairness upon the part of the superintendent justify a school board in encouraging school children to bring their grievances before it. The school board of Zanthor admitted that Brown was not incompetent, for it reemployed him and raised his salary.

In hiring the teachers without consulting Brown, the board did him a serious injustice. They knowingly employed teachers who were disloyal to Brown. Apparently the good of the school was not considered. It was merely a matter of playing both sides against the middle. There is no common mistake of school boards that is more fertile in possibilities of evil than this one of electing teachers without consulting the superintendent.

The fact that certain members of the board failed to vote against certain teachers for fear of offending them is the strongest argument against the selection of teachers by the board. Had the matter of selection been in the hands of Brown, this situation could not have arisen.

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And Brown would likely have chosen a faculty with whom he could have worked harmoniously.

But where the board made its greatest mistake was in allowing a petition to be circulated against Brown. The petition nuisance is one of the most troublesome things which school boards and superintendents in small towns have to contend with. And it is an annoyance that any school board can prevent by refusing to consider petitions of any sort.

Petitions are based upon a fallacy; they are no index of popular feeling. People sign petitions largely because it is easier to sign than to refuse. Signers galore could be found to affix their names to a document depriving them of their own freedom. This truth was demonstrated by a classic experiment that was performed by a student at Emporia, Kansas. He circulated a petition demanding the decapitation of a citizen; a large number of people signed it. Perhaps they were too ignorant to know the meaning of the word, perhaps they did not read the petition; but the fact remains that they blithely placed their names upon a paper asking that an innocent man's head be cut off. How much thought, then, can be attributed to people who sign petitions demanding the removal of public officials?

The last indictment against the school board of Zanthor, and others like it, is that they have proved themselves poor business men. It will be rather odd if some taxpayer doesn't demand to know, when the next superintendent is employed, whether or not he is being paid to be a superintendent. It is hard to conceive the mental processes of men who will pay a skilled executive a high salary to do something for them, only to do the work themselves, gratis.

The practice by school boards of mixing political and religious prejudices with the administration of public-school affairs is so obviously wrong that it calls for no comment. Any school-board member who is guilty of this offense simply demonstrates his incompetence to fill his office.

CHANGES IN TEXTBOOKS

(Concluded from Page 39)

less of the number of requests for any particular book.

"No committees to decide on the merits of new textbooks will be appointed by the superintendent and no referendum will be called by the superintendent to decide on a new text. Requests for a change in a textbook received by the superintendent after the close of school in June will not be considered.

"New textbooks are numerous and expensive, and requests for changes should be made after careful and continued consideration. Conclusions in regard to changes in books should be reached after weeks of careful study (and use, if possible) of the books in question, and not after a lengthy discussion of the merits of one or all of the proposed books. The desire for changes in textbooks should originate with the teacher and not with someone outside of the classroom or system.

"Good sense would suggest that not many changes be made in any one year. If requests for several changes are made in any one year, the superintendent will decide, after receiving the requests, what changes, if any, he will recommend. If anyone within or without the system starts a campaign for a change of textbooks in any subject, the superintendent may deem that sufficient reason why he should not recommend any change in that text. It is very important that both teacher and pupil should have the latest and best books, but the desire for a change and the decision for a certain text should come from those interested primarily in the children. If in the judgment of the superintendent any text is so decidedly out of date that the pupils are being hampered in their work because of it, he reserves the right to recommend a change even though no teacher has requested it.

"A practical and sensible application of the above would be to have each teacher find out before May 1, everything she can about new books from representatives of the book companies, correspondence, and conversation with other teachers, and then take the month of May to think it over by herself and decide what book or books she will request. When her decision has been reached, her written request should be placed in an envelope and sealed and sent to the superintendent. If the teacher will consider this a secret communication and allow each teacher to reach her own conclusion, it will add to both the fairness and ultimate effect of the requests.

"It should be kept in mind that the number of schools which use a certain book need not necessarily indicate anything about the merits of the book; it may only indicate the quality of salesmanship used in introducing the book.

"Courtesy would suggest that May and June be regarded as the closed season for textbook agitation in Oswego."

METHOD OF FIGURING NORMAL ENROLLMENT CAPACITY OF A JUNIOR HIGH SCHOOL

(Concluded from Page 48)

can be accommodated in a building, with a specified curriculum, without handicapping any pupils by abnormal conditions.

12. Under pressure of necessity, this capacity may be stretched considerably. In the specific instance of the present standard junior high school in Cleveland, the normal capacity is 1,280, and it has been estimated that 1,600 pupils might be crowded into the building without actual increase of its facilities. From an economic standpoint, the most desirable operating load may be somewhere between these figures. From an educational standpoint, the lower figure would seem to be preferable.

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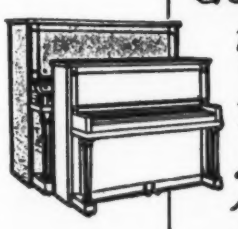

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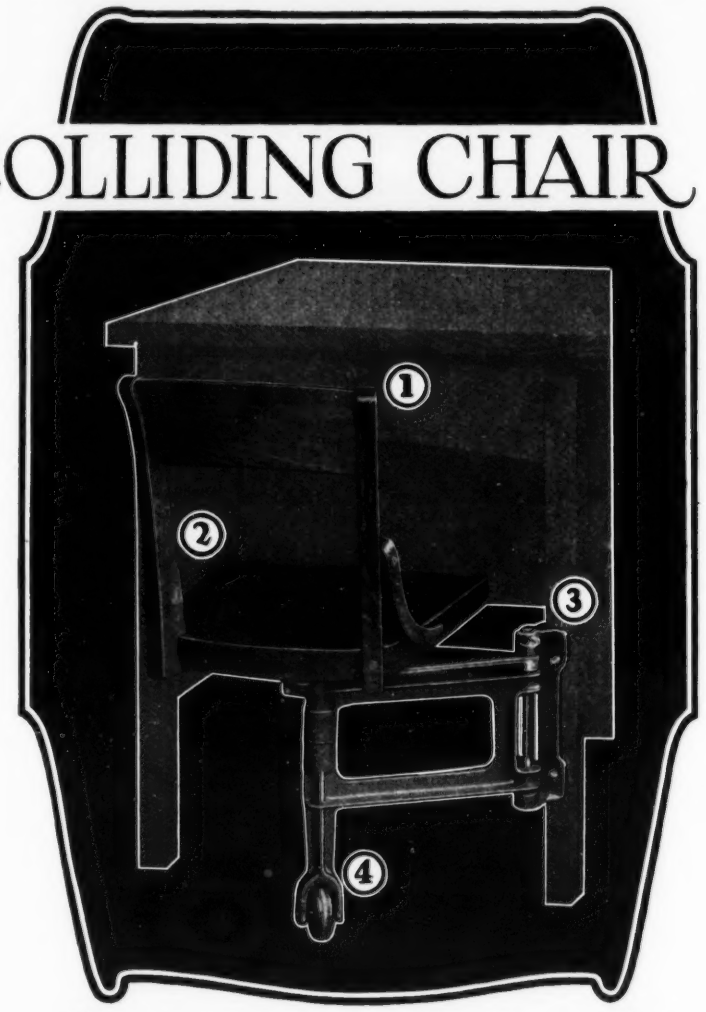

It will save you money and space—it will promote discipline—it will increase teaching efficiency and enhance learning ability.

Money—The Law Non-Colliding Chair is *not* expensive in the final analysis. Because of its non-colliding features it will save you the cost of reconditioning furniture. Its durability of construction assures of long life and low maintenance cost.

Space—It permits of a more economical placing of tables and, therefore, a greater room capacity because the student occupies or arises from the chair from a side position. (The loose chair requires greater space because it must be pushed back to permit of occupancy.)

Discipline—It is absolutely quiet in operation, thereby eliminating the usual classroom confusion where loose chairs are used. Besides, its features of correct posture assure of physical ease, thus promoting an alert state of mind on the part of both teacher and student.

These four distinctive features of the Law Non-Colliding Chair merit your *special* consideration:

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Second—Nineteen inches of knee space is the only requirement for installation. The chair can be supplied with mechanism for attaching to the right or to the left table leg, whichever may be required.

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Fourth—The single sturdy pedestal at the center of gravity carries all the weight of the occupant on the floor. Result, the safest chair—for both teacher and pupil—made.

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School Seating Division

Bedford, Ohio

Full information on the Law Non-Colliding Chair and other types of school seating equipment will be sent to interested school executives upon request. There is no obligation involved.

THE HOME BULLETIN BOARD

(Concluded from Page 40)

about his state, ask them how the wife and family were and how about the crops, and so on, establishing the personal contact and showing interest and keeping hold.

The American Magazine furnished the third and the fourth clippings. Although not directly related to the first two, they furnish themes for considerable contemplation.

How to Help Fix a Man's Name in Your Mind

The first essential toward remembering a name is to get hold of it at the very start, says Mr. Norwood. If you do not "catch" it when introduced, ask to have it repeated. If necessary, ask to have it spelled. My experience is that no one is offended by this. On the contrary, most people correctly regard it as an evidence of interest in them.

Having got the name, and got it correctly, I make a practice to repeat it occasionally while I am talking with the man. You needn't keep dragging it by the heels, so to speak. It can be done in a perfectly natural way.

Suppose I find out that a man's name is Belden; not Benton, or Bolden, or something like that, but *Belden*. He is the city editor, we will say, of a Texas newspaper, and I am in his office to place advance notes for the circus. It is perfectly simple and natural to use his name occasionally: "How's the cotton crop around here, Mr. Belden?" And so on until the final "Good day, Mr. Belden! I'm glad to have met you." One doesn't need to overdo the matter; but this repetition of the name helps by setting up a clear mental impression, almost an automatic action of the brain, so that the next time you see the man, you almost unconsciously say, "Mr. Belden."

John M. Siddall

"When I am dead," he once said, "I want you to carve on my tombstone this line: 'Here lies a man who lived a number of years and found out one thing, *that there is no substitute for work.*'"

But he had gathered around him a staff of coworkers who were not only in sympathy with his policies but who shared his confidence and his responsibilities. He put everything possible onto their shoulders, watching their work with his keen, kindly eyes, and never withholding his appreciation. *"That's fine!"* were the words spoken oftener than any others in the office where he sat for eight years.

Men talk about the "secret" of the American Magazine. The only secret is that John Siddall loved people and knew what interested them.

Sometimes an executive, busy with the details and routine work of an important superintendency, loses sight of fundamental factors that may improve greatly his success as a leader in the community. In one case at least, this has been avoided by the use of a home bulletin board.

INTELLIGENCE GROUPING VS. DEMOCRACY

(Concluded from Page 54)

terminism seems to me to fail as an instrument with which to classify children in a democracy.

The Failure of Determinism in Classifying Children

First, it is weak in the hypothesis that all minds are alike except in quantity, that these individual quantitative differences are only matters of I.Q.

Second, it errs in assuming that for practically all pupils the environment is so nearly equal as to be practically negligible.

Third, it is in error in assuming that such traits as are tested by the scales are the main traits in determining social leadership, while ignoring other qualities, such as character, energy, adaptability, tact, diplomacy, integrity, and a host of others, which are clearly not tested.

Fourth, it is a mistake, I believe, to assume that even if we were sure of our ground in intelligence testing, that the separation of the "sheep" from the "goats" is good for either groups. To put upon one group the stamp of very great superiority would be to encourage a snobbishness painful to democracy, and to brand the rest as inferior would be to establish in their minds a psychological complex of inferiority which would constitute a crime.

Fifth, the proposal to utilize public funds to provide special training for the already gifted, which they presumably would use in their own personal gain, would be anything but democratic in a democracy.

Sixth, many people are convinced that other qualities such as character, integrity, patience, work, social adaptability, diplomacy, ability to get along with one's fellow men, etc., are of greater importance in leadership than abstract thinking. Allow me to repeat that, if intelligence-test makers would devise tests that would measure at least ten of these excellent qualities in determining an I.Q., I would not have any controversy with them. If a test could be devised to measure ten of these excellent qualities and to propose that those excelling under it should be especially trained for leadership, and at the same time to brand those who merely have a high I.Q., by excluding from them such special training, what a howl would arise that it is unjust and undemocratic. According to the present methods in securing an I.Q., I do not believe that it is safe or democratic to separate children as to probably future success or leadership. I think that the tests have some suggestive values, but there are so many other factors in human success that any attempt to base an educational system upon the tests would be social suicide.

—Mr. J. F. Bemiller of Lancaster, Ohio, has been elected superintendent of schools at Galion. Mr. Bemiller is a graduate of the Ohio University and holds two degrees given for advanced professional work. He has completed 23 years in the schools' service, fourteen of which have been given to administrative work.

—Mr. John Waddell, formerly superintendent of schools at South Milwaukee, Wis., has been appointed state high-school inspector. Mr. Waddell is a graduate of the Wisconsin University and is one of the best known schoolmen in the state.

THE Underwood Typewriter itself is a great help to the teacher because its simple, easy operation removes the drudgery that many students find in practise. But, more than this, Underwood School Service provides aids and incentives that interest the student in better typewriting, making the teacher's work easier and more effective. Beside the "Monthly Test" illustrated here there are eight outstanding features of Underwood School Service in which every teacher of typewriting and every school executive is interested.

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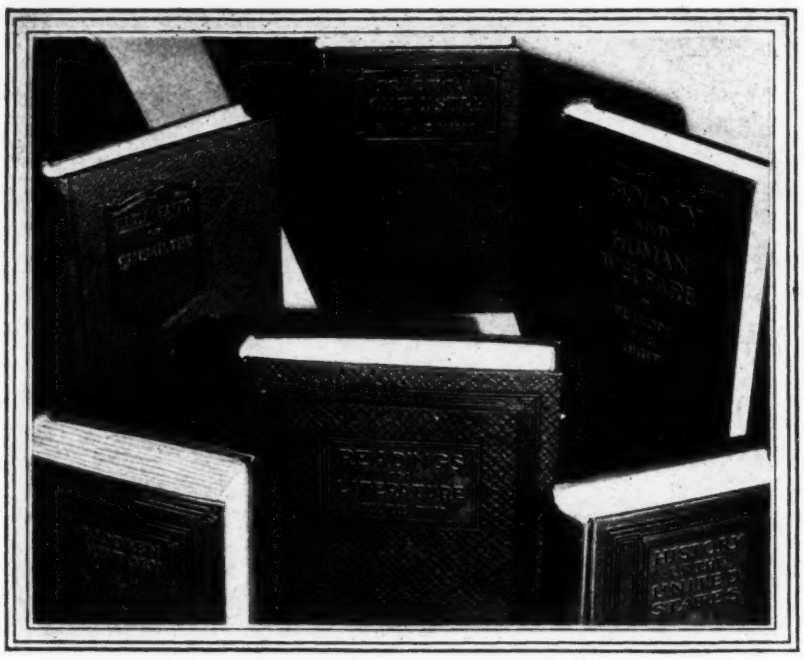
THE STANDARD TYPEWRITER



Photograph through courtesy of the Macmillan Co., Publishers.

Covers *that "borrow Time" for Text Books*

HOW Time and childhood's carelessness can shorten the life of text books! Ink stains, finger marks, pencil smudges, water stains, dirt do their part. Time, ever at work, completes the ruin.

But—Fabrikoid covers cheat careless handling —actually "borrow time" to lengthen the life of text books. That is why when you select Fabrikoid-bound books you are buying with an eye to the future.

Defacing marks may be instantly removed from Fabrikoid with soap and water. And Fabrikoid itself is tough, durable—built to stand up under the constant knocking around that text books get. Waterproof, wear-proof—it lets a book live—keeps it still good-looking after many months of use.

Principals, teachers, and Board of Education members are invited to correspond with our Textbook Department for further details and information.

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NEWBURGH, N. Y.

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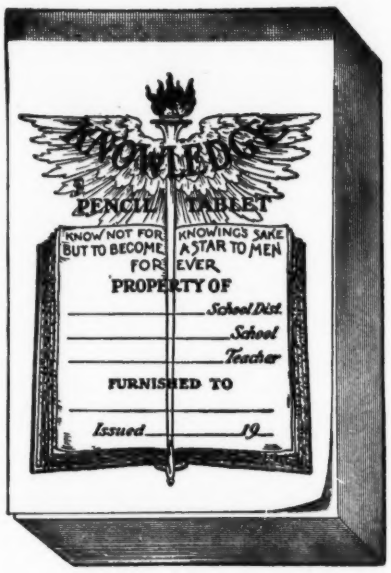

THE KNOWLEDGE PENCIL TABLET

Adopted as standard by hundreds of Pennsylvania Schools and by many others in every state of the union.

Made in two sizes — 6x9 and 8x10½.

In two papers — White and Canary.

In a variety of thicknesses —From 50 to 100 sheets.

In perforated style — So that any sheet is instantly removable.

Complete information available thru any Service Wholesaler or direct from the manufacturer.

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Manufacturing Stationers - - - Huntingdon, Pa.

Enthusiastic reception for

Eastman Classroom Films

Many schools are using Eastman Classroom Films, available now for the first time, as a regular established part of their daily work.

Investigate this new material and avail yourself of its teaching power.

All Eastman Classroom Films are made on 16 mm. safety stock.

Further details will be found in the pamphlet *Eastman Classroom Films*, mailed on request.

Let us give a demonstration

EASTMAN TEACHING FILMS, Inc.
SUBSIDIARY OF EASTMAN KODAK COMPANY
ROCHESTER, N. Y.

THE EVOLUTION OF THE PUBLIC-SCHOOL PLANT

(Continued from Page 44)

units will be considered as the base plan of the period.

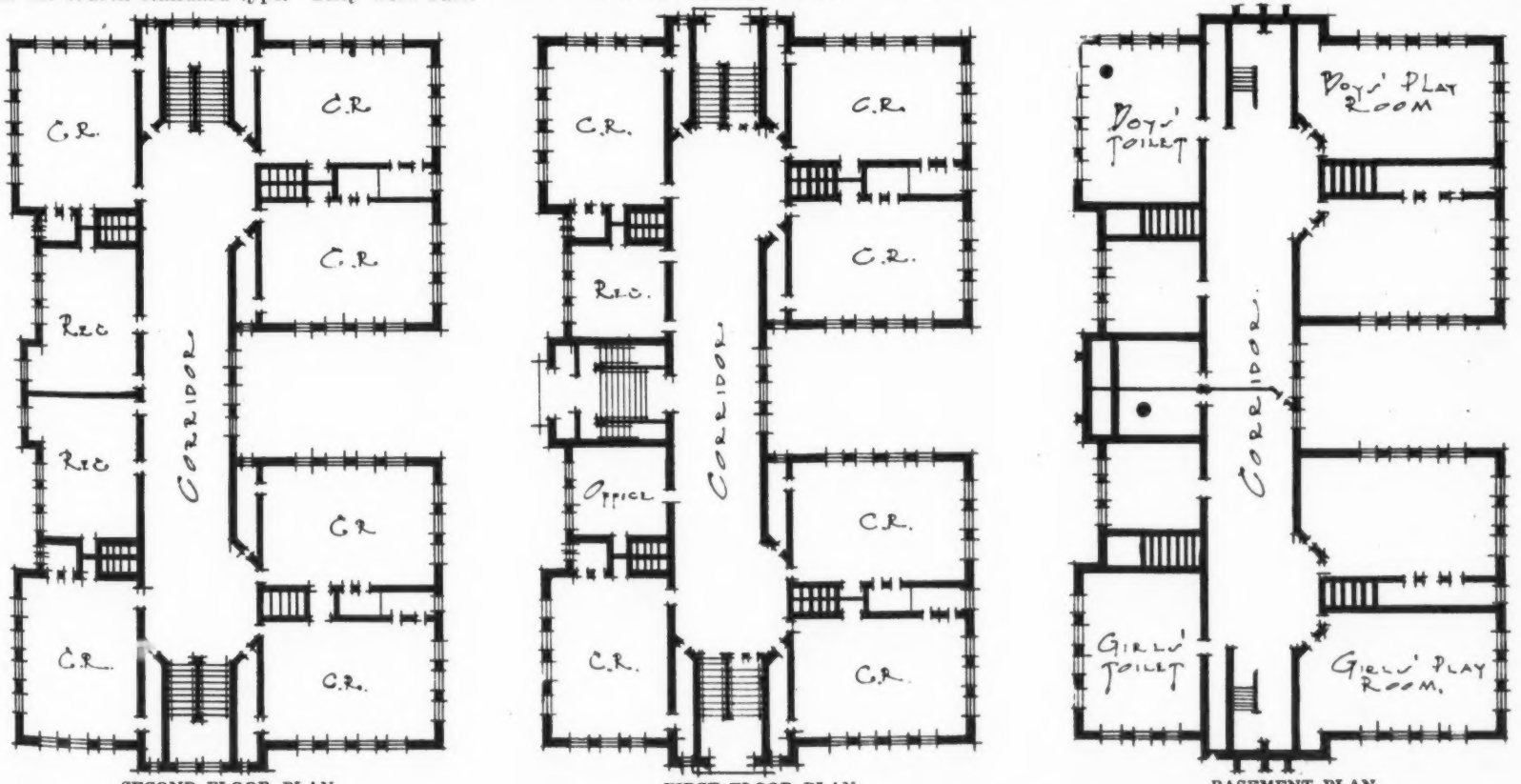
Fourth Standard Type

The second Clay, Logan, Dickinson, Palmer, Jackson, Field, and Estabrook buildings, erected in the late eighties and early nineties, present practically the same features and represent the fourth standard type. They were built with minor variations of the central corridor plan. The janitor's living quarters disappeared in 1876, and the added basement space was now used for a playroom during inclement weather. As the need developed, temporary classrooms were fashioned out of the basement.

There was little attempt at exterior architectural treatment in these structures. The exteriors were of the regulation soft red brick; their only purpose, apparently, was to wall in the schoolrooms. Windows were still comparatively small, and the general impression was one of dinginess.

New Educational Practices

In the late nineties, a number of additions were made to the elementary curriculum. The kindergarten was introduced in 1895. Manual activities were added to the curriculum in 1899. Until 1900, a regular classroom was used to house the kindergarten and no extra provision



SECOND FLOOR PLAN — FIRST FLOOR PLAN — BASEMENT PLAN

FLOOR PLANS OF THE VAN DYKE SCHOOL, DETROIT, MICH., ERECTED IN 1894

Patented August 17, 1926.
Other patents pending.

Before school—after school—during study periods—the teacher prepares lessons on The Alternator in advance, to expose them when needed. How easy and simple—and what a timesaver!

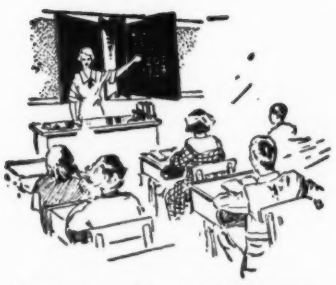
Teachers *Need* "The Alternator" *for* Best Results

A skilled surgeon, an expert draftsman, a master mechanic—none of them can accomplish the best results without the proper instruments or tools. Nor can a teacher do her best work without the proper equipment. Give your teachers "The Alternator" for their classrooms . . . and it will revolutionize their classroom methods.

Picture a swinging blackboard that works like a giant book—four "leaves" of eight "pages" giving the teacher ***eight individual blackboards*** on which to write exercises and test questions. Placed behind her desk, it gives her ***eighty-four square feet of blackboard space,*** convenient to handle and display to the class! This efficient, swinging blackboard—called ***"The Alternator"***—is saving time and improving teaching conditions in thousands of schools throughout the nation.

With The Alternator, the teacher may prepare her blackboard lessons in advance and thus save time during the school period. The lessons and tests need not be exposed to the scholars until the proper time. To swing the board in any position, the teacher merely gives a gentle push. The boards move freely, and stand in place at any angle where stopped. Think how convenient this would be!

The Alternator saves time, enabling the teacher to keep lessons from day to day. It is easy to handle, as there is nothing to lift. And there is nothing to get out of order, for the patented swinging device always works perfectly! The cost is amazingly low.



Write for our interesting new sixteen page booklet, showing pictures of The Alternator as installed and in use—together with informative and authoritative statements from school officials regarding this efficient swinging blackboard. Ask for Catalog A-3.

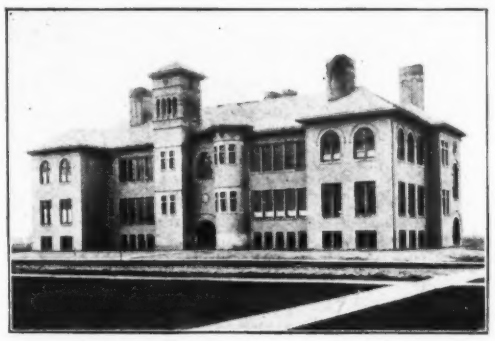
K-M SUPPLY COMPANY
123 West 8th St. Kansas City, Mo.

was made for manual activities for many years. Basement rooms of regular classroom size, or larger, were fitted for sewing, cooking, and benchwork. Apparently the period between the introduction of these activities into the curriculum and their inclusion in the building plans was one of study and experimentation to determine what the needs actually demanded in respect to the physical plant.

Fifth Standard Type

The Trowbridge (1890), Van Dyke (1894), and Amos (1895) schools differed in some respects from preceding buildings. By this time the unilateral lighted room had become fairly well fixed as the ideal type of lighting, for the seating could be arranged so that the light fell over the left shoulder. End rooms were still lighted from two sides. This arrangement called for a central corridor, parallel to the main axis of the building, entered by one or more doors from the front, and in some cases from the rear also. Stairs leading to the second floor were placed at each end of the corridor for better lighting. The Van Dyke plans are reproduced.

HENRY CLAY SCHOOL (1888), DETROIT, MICH.



FAIRBANKS SCHOOL, DETROIT, MICH.

Fairbanks School. Distinct attempts were made in 1894 to beautify the exteriors of elementary buildings. The Fairbanks school (1894), was erected of cream painted brick and showed traces of Italian influence, with the traditional bell tower treated in a manner reminiscent of the campanile. The Amos (1895) school showed distinct Georgian influence and was a big advance over the plain red-brick buildings.

(To be Continued)

A STUDY IN SCHOOL SEATING

(Continued from Page 52)

minus distance, correct posture is induced with very little attention on the part of the pupil and a minimum of insistence on the part of the teacher. Attention to the posture habits of pupils in the second and third grades where a large part of the time is spent in seats, is one of the important tasks of the teacher, and has received less recognition perhaps than some other things of less importance to the health of the growing child. Tables and chairs may serve with little objection in the modern kindergarten and first grade in this respect, though for the second and third grades, the time and trouble necessary to keep the tables and chairs in the proper relative positions militate against their use in these grades."

Lack of Noise. The choice falls upon fixed seats for all the grades. Even in the customary fixed seat, the noise of getting in and out is less than with tables and chairs, unless the latter are rubber tipped.

Absence of Interference During Panic and Fire Scares. Fixed seats are again chosen, with chair-desks second, and tables and chairs last, due, no doubt, to the multiplication of pieces of furniture and instability in the latter two.

In summarizing the considerations under the heading of physical safety and hygiene, the preferences indicated that chairs and tables should be used in the kindergarten and first grade, and that movable chair-desks are more desirable in the second and third grades.

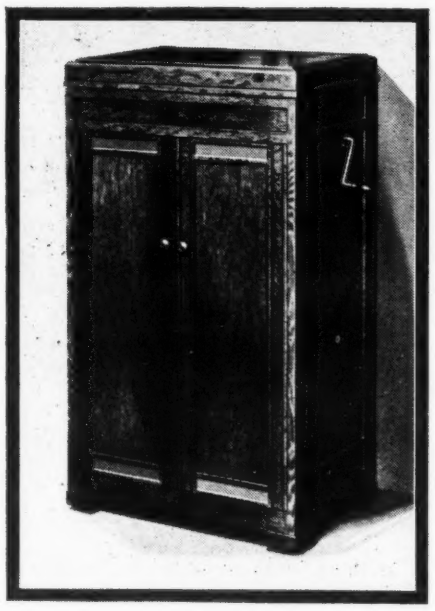
Economic and Administrative Factors

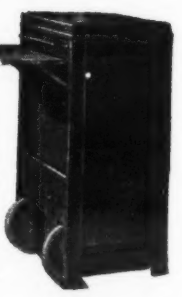
Mr. Lundberg found that teachers and principals lack sufficient information on the element of initial cost of tables, chairs, etc., to express an opinion. In speaking of the local situation, he writes: "Good tables and chairs for these grades (two pupils to a table) cost about $7 per pupil. Movable chair-desks with drawers, from $6.15 to $9.75, and fixed desks from $4.50 to $5.50, depending upon the type of each kind. In Flint, the prices are $14 for a table and two kindergarten chairs; $6.15 for one type of movable chair-desk with drawer, $9.75 for another type, and $4.45 for the present type of traditional fixed seat."

Depreciation. Tables and chairs in the kindergartens and fixed seats in grades one, two, and three show the slowest depreciation according to the observation of teachers, principals, and superintendents. Perhaps tables depreciate

(Concluded on Page 143)

An unprecedented concession to schools!





25% discount

on this new Orthophonic Victrola, No. 8-8, of full Orthophonic performance, magnificent volume, extraordinary accuracy, and conveniences ingenious for school use. This discount is allowed by the Victor Company to schools only.

Never before, in the great shining history of music, has music so widely opened its doors to schools. First, Victor's immense library of music — Orthophonic, created for educational use. Then, the special Orthophonic Victrola for the school-playing of this music. . . . And now is offered an even more improved model, with hidden wheels—automatic stop—long-running motor—desk-shelf—and blue-paneled cabinet with antique brass finish. . . . A superb Victrola to look at—and *musically the equal of the very finest Orthophonic Victrola.*

And suddenly—an unprecedented concession to schools only—the Victor Company allows on this new school Orthophonic Victrola, No. 8-8, a 25% discount! The only specification is that the Victrola is to be used in a school. Write for full explanation. You have to see the cabinet's beautiful simplicity and hear this new Victrola's magnificent singing tone to appreciate its value fully. Address your inquiry to

The Educational Department

VICTOR TALKING MACHINE CO.,
CAMDEN, NEW JERSEY, U. S. A.

Announcement

Neighborhood Motion Picture Service, Inc.
(School Division)

is now to be known as

DEVRY SCHOOL FILMS, INC.

To make our name more truly descriptive of our service, we have decided upon the change indicated above, effective immediately.

The teaching film courses developed by Neighborhood Motion Picture Service, Inc., have attained such a high place in the world of visual education that they merit a name which correctly emphasizes their significance. The choice of "DeVry School Films, Inc.," is fitting recognition of the outstanding achievements of DeVry in pioneering visual education.

For DeVry has pioneered in this field, not only in the development of motion picture equipment suitable to the particular needs of schools, but also in the preparation of teaching film courses based upon sound pedagogical principles.

The outstanding superiority of DeVry School Films is the fact that they are specifically prepared for school use. Tested in the classroom, they have proved their worth so emphatically that leaders in visual education throughout the country, such as Dudley Grant Hays, Chicago, W. A. Wirt and A. H. Jones, Gary, and many others, have given their enthusiastic endorsement.

DeVry School Films are definitely correlated with established school courses and arranged to cover the entire school term. Each film is accompanied by a teacher's lesson guide, making it easy for any teacher to make an effective presentation of the film lesson and a proper follow-up.

Eight Complete Courses Now Available in

Nature Study	**Vocational Guidance**
American Statesmen	**General Science**
Citizenship	**Health and Hygiene**
World Geography	**Electricity**

All films are on non-inflammable stock, in both 35 mm. and 16 mm. widths. They may be had on rental or purchase basis and with or without DeVry Motion Picture Equipment.

Directors, Teachers, School Executives. Get detailed information, without obligation. Write or send coupon now for literature, including samples of actual teacher's guides accompanying films. Indicate courses interesting you particularly.

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Dept. 10 S.B. **Dept. 10 NE.**

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DeVry is the World's Largest Manufacturer of Standard Motion Picture Cameras and Portable Projectors.

(Please address nearest office)

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Mail this Coupon

Gentlemen: Without obligation to me please send complete information about your school film courses. I am particularly interested in

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Name .....

Position .....

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For Full Information

ROYAL SEATING IS SUPREME

Pattern No. 32

Guaranteed 10 Years

Laboratory Stool No. 54

LABORATORY STOOLS
FOLDING CHAIRS
KINDERGARTEN AND LUNCH ROOM FURNITURE

Folding Chair No. 139

Royal School Furniture has built an enviable reputation for strength, posture, comfort and finish. Thirty years of experience in the manufacture of Metal Furniture and the designing of seating to meet special requirements is reflected in the superiority of present-day Royal School Furniture.

UNSURPASSED RIGIDITY — The only chair using DOUBLE RIVETED Construction.

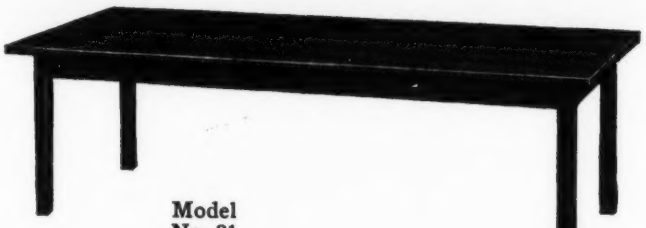
OPTIONAL EQUIPMENT—*Drawers — bottom shelf — front, back or side panels—inkwell—wood back-rests—curved or straight front legs.*

Sample sent for FREE TRIAL.
No expense — no obligation.

ROYAL METAL MANUFACTURING CO.

METAL FURNITURE SINCE '97
1130 South Michigan — Chicago, Ill.

Kindergarten Tables That Are Made *For Children*



Model No. 81

The Standard Line of Kindergarten Tables have been made to meet the demand for sturdy, serviceable, and good-looking tables for little tots. The No. 81, illustrated above, is made of grained hardwood, has legs fastened with heavy hanger bolts, and is finished in Standard (dull) Brown. The children in your Kindergarten will be eager to play or learn at such tables.

Standard School Equipment Products include furniture for classrooms and office—from Kindergarten to University — a complete line in which Quality and Service are outstanding.

TRADE MARK
JONES
The Standard Line
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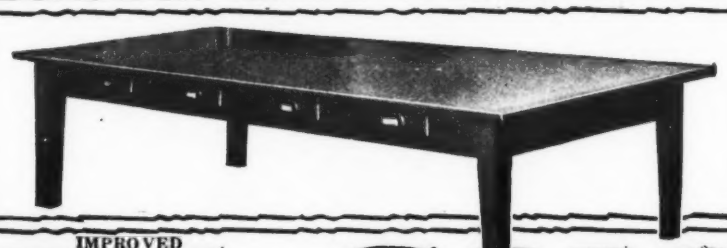
This trade mark sign is on every piece of the Standard Line of furniture. Look for it. It is your guarantee of high-class and durable furniture. Make it your buying symbol.

We will send you a copy of our new 1928 catalog showing many new and improved patterns. Write for it now.

STANDARD SCHOOL EQUIPMENT CO. Inc.

229 W. Breckenridge St. Louisville, Ky.



IMPROVED
ELGIN SCHOOL TABLE

Group Instruction

THE superintendent of a prominent school writes us as follows: "We are getting further and further away from the old-fashioned notion that a child is only learning when he is directly talking to the teacher or the teacher is talking to him, or he is reading from a book which is in the hands of all members of his class and all giving attention to the same matter of instruction.

"If children are to be trained for democracy when they become men and women, it is necessary that they shall have in their early life the experiences which are fundamental to genuine co-operation and good will in the performance of common tasks in which all participate and by which all are instructed."

The Elgin School Table, being movable, makes possible these socialized recitations and group co-operative effort in the process of learning. Children learn not only from the teacher, but from each other.

Try this modern method in your first and second grades. Our booklet, "Seating Efficiency," will point the way. Send for it.

RINEHIMER BROS. MFG CO.
ELGIN, ILL.

MANUAL TRAINING BENCH No. 280

A GLANCE AT THIS NEW PATTERN will show that the combination of various sized drawers and cupboard makes an unusually practical bench. Notice, especially, the small drawer which is intended to hold nails, screws, small tools, etc., which so easily become misplaced when kept with the larger tools. Being able to immediately lay hands on these small but necessary items, will be the means of saving a great deal of time, thereby promoting efficiency. Also, notice the large cupboard, which will hold such tools and materials which can not be kept in the general or three private drawers. Bench is equipped with our Abernathy Rapid Acting Roller Nut Vise No. 70D on front, adjustable stop and dog.

C. CHRISTIANSEN

Manufacturer of this line since 1898

2814-2842 West 26th St., Chicago, Ill.

From *This* to *This* in 4 Minutes

The Only Sander Guaranteed to Meet Your Requirements

Choosing the sander for your school is a simple matter—
—if you are not distracted by side issues
—if you keep in mind the four things you require of a sander.

1. **The ability to do all classes of maintenance work you want done. Desks particularly.**
2. **Light weight and balance combined with speed and power so growing boys can operate it, anywhere there is a light socket—on any kind of work. This for Manual Training.**
3. **Long life and freedom from the liability of mechanical difficulties.**
4. **A definite guarantee that it will do the work.**

This is what you can demand of your Clarke:

120 to 200 old desk tops made like new in a day. Varnish, scars, and scratches removed in one simple operation.

Floor surfacing at the rate of 800 to 2000 square feet in eight hours if no varnish on it, and 300 to 1000 square feet if there is varnish to be removed. No varnish remover is needed.

Usefulness in Manual Training Department practically equivalent to three expensive stationary machines. The three drum sander, belt sander, and arm sander.

You run no risk. We must prove the Clarke will do this work within sixty days, or we refund payment.

The CLARKE, and only the CLARKE, can give you such a guarantee.

To be sure you are right, buy only the CLARK Vacuum Portable Sander. Write for our latest literature.

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Originators, and for over 11 years, Manufacturers of Portable Sanding Machines

MANUAL TRAINING

AND FLOOR WORK, TOO.

(Concluded from Page 140)

more or less rapidly because of the habit of placing chairs on the table tops.

Destruction of Floors

Tables and chairs were declared to be least destructive to floors. "It is easily granted that fixed furniture causes more destruction to the floors in the changing of seating arrangements because of the necessity of screw holes. Movable furniture may also injure good flooring unless suitable provision is made for easy sliding. Metal gliders will allow of easy sliding back and forth." The floors will show the lines and dents to some extent. This kind of injury to the floor is minimized by the use of rubber tips made of old tire casings, but when these are used, the furniture must be lifted to move it properly.

Adaptability to Crowded Room Conditions. In rapidly growing schools and school systems, where large classes are found necessary, movable individual seating is more adaptable than the other types. This seems to be the general experience of school authorities. Large stocks of idle or emergency seating equipment may be avoided by the use of movable seating. The teachers and principals who answered the questionary favored tables and chairs for the kindergarten and first grades, and movable chair-desks for the second and third grades. The important point of cost of installation and moving was not considered. Undoubtedly, it would show a large economy over fixed furniture, when the item of screwing down desks and removing the screws is considered.

"Adaptability to Community Uses of the Room and Building. Tables and chairs were given first choice in the kindergarten and first two grades, with equal adaptability of chair-desks in the third grade. It seems that for some purposes, the chairs alone would serve better in this respect than the chair-desks.

"Combining the factors under economy and administrative uses, Mr. Lundberg concludes that tables and chairs are favored for the kindergarten, and movable chair-desks for the first, second, and third grades."

Conclusions. Taking all these standards into consideration, there is a marked preference for the use of tables and chairs in the kindergarten and first grade, but this preference is a little less decided in the second grade, and not a few would choose movable chair-desks for the third grade. Several large cities have already established a policy of using tables and chairs for the kindergarten and first grade, and movable chair-desks for the second and third grades when ordering new equipment.

"The results taken from individual questionaries suggest that teachers and principals judge these types of seating from one or two educational or instructional factors, rather than from a consideration of all these factors and the extent to which any type of seating does embody the largest number of them. It should also be and chairs for all ordinary classroom purposes mentioned that some school systems favor tables from the kindergarten through the high school. This seems to be the choice of many professors of education who have had to do with all types.

"In view of all the factors and opinions mentioned, it seems advisable to use tables and chairs in the kindergarten and first grade, where the predominant activities of the children are of a constructive and manipulative type, and to use movable chair-desks for all other ordinary classroom purposes where posture habits are being rapidly formed and individual concentration is important to the formation of right study habits, and matters of lighting, hygiene, sanitation, and multiple use of school furniture are to be taken into consideration."

IS A PERMANENT TEACHER TENURE PRACTICAL?

(Concluded from Page 43)

"The movement for life tenure of teachers is an outgrowth largely of injustices in the matter of employment, caused largely by the whims of communities and the unintelligent actions of local boards of education. That yearly reemployment is both unsatisfactory and unjust to teachers, and that the effect upon the teaching force and in turn upon the schools is injurious cannot be doubted. The results have been that the teachers, to cure an evil, have proposed to create what in time is very likely to become a greater one, as full life tenure is almost certain in time to be even worse than annual reemployment."

STUDENT TRANSPORTATION FOR UNION HIGH SCHOOLS IN CALIFORNIA

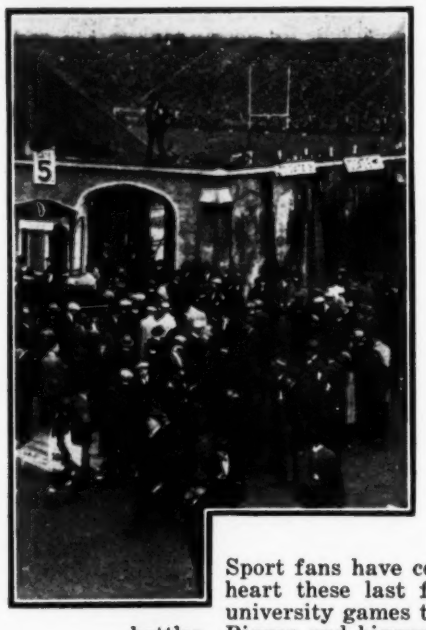
(Concluded from Page 45)

but not least, the concentrating of those interested in a given work into a community enterprise centrally located.

Tulare Union High School operates 10 busses, covering an area of approximately 530 square miles. These vehicles are of the 30-passenger type.

Burlingame High School, one unit in the San Mateo Union High School district, receives aid and benefit from the great development of the automobile industry. Students and faculty members are enabled to attend school regularly by making use of the automobile as a means of conveyance, with the result that no drudgery is connected with the daily trips to and from school, while the district is able to concentrate upon the building of large and splendidly equipped educational plants instead of small schools scattered throughout its territory.

The Burlingame school draws its student body from the large area which includes San Bruno, Hillsborough, Lomita Park, Millbrae, San



HOW ARE YOUR SEATING FACILITIES?

Sport fans have certainly taken football to heart these last few years—from the big university games to the smallest high school battles. Bigger and bigger crowds—*more and more seats needed.*

Crowds want good seats, too—seats that are comfortable and safe. They don't come twice to a stand that's wobbly, or tiring on the back and neck.

Circle A Bleachers are sectional and portable. They can be set up in a very short time. They can be left up all season or taken down after each game. Moreover, Circle A Bleachers are usable all year—indoors and out. They are tested to hold four times the weight of a capacity crowd. Send today for details on these safe, comfortable seats.

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600 So. 25th Street, Newcastle, Indiana

CIRCLE A BLEACHERS
SECTIONAL AND PORTABLE

Soapeze Washed Floors
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Mateo Park, Burlingame, and parts of South San Francisco. Situated in the heart of the peninsula that leads to San Francisco, the school is favored by the nearness of many fine roads and railways. While street-car service is important in bringing students to and from this school, at least a third of its 780 students use the busses or family cars. This fact is significant of the importance of the automobile in California, and in Burlingame especially.

Space limitations make impossible further presentation of data relative to California's union high schools. However, save for differences in names and figures, in essential features the story of one is the story of another—of all. That story is, from the present approach, that this state has a highly successful union-high-school system, represented by magnificent educational plants whose operation is inseparable from automotive equipment.

TWELVE THOUSAND NEW YORK PUPILS EARN TRIAL PROMOTIONS IN SUMMER SCHOOL

With the opening of the school year, some 12,628 boys and girls of the New York City elementary schools were advanced a grade above that in which they were registered in June. They represent the pupils who have earned trial promotions as a result of six weeks of arduous study in the 49 vacation elementary schools of the city, which closed their terms on August 17.

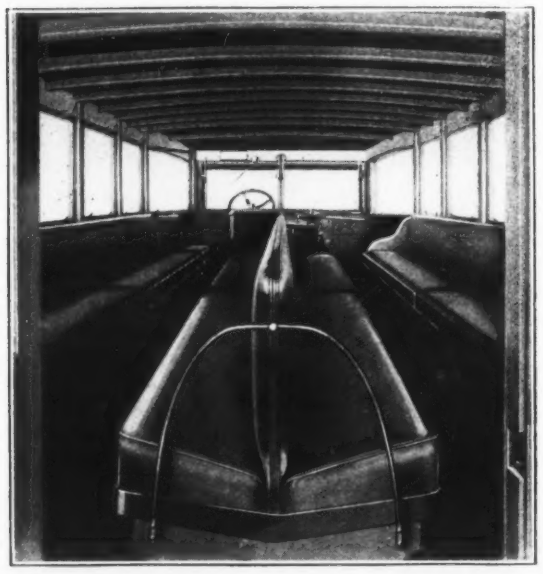
The summer term just ended was one of the most successful ever enjoyed by the vacation schools, and the figures show that 84 per cent of the pupils on register at the close of the term were granted certificates entitling them to trial promotions in their home schools, as compared with 82 per cent a year ago.

The summer schools opened with an enrollment of 17,262 pupils and closed with a register of 15,023. Of those on register at the end of the term, 14,912 took the final examinations in one or more subjects, and 12,628 received certificates. A year ago, 13,693 pupils were granted certificates out of 16,704 enrolled at the end of the term.

An interesting feature of the work was that the holdover pupils did better work in the vacation schools than did the overage bright pupils, who were recommended by their principals for advanced work so that they could skip a grade upon their return to school in the fall. Certificates were granted to 7,462 holdovers, or 85.5 per cent of those on register at the end of the term, as compared with 82.3 per cent, or 4,975 overage bright pupils.

Should all of the 12,628 pupils who received certificates maintain themselves in the grades to which they are promoted, it will mean a saving of more than $500,000, as they will have saved the city the difference between the cost of a regular term of instruction less the cost of maintaining them in the summer term. This is estimated at $40.10 per pupil.

—Mr. A. L. Nichols and Dr. D. C. Northup have been reelected as members of the school board at Ellicottville, N. Y. Mr. W. F. Fitzpatrick was elected president, and Mr. Guy French as clerk of the board.



THREE ARRANGEMENTS OF SEATING FOR SCHOOL BUSSES
Left: Lengthwise seats at sides and middle. Middle Illustration: Chair seats all facing forward. Righthand Illustration: Lengthwise seats on sides and street-car seats in middle. Courtesy Graham Brothers, Detroit.

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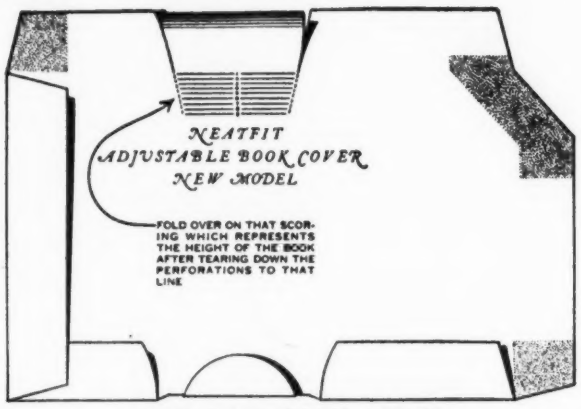
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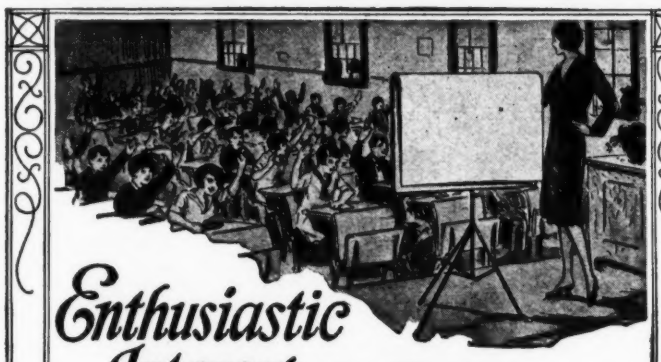

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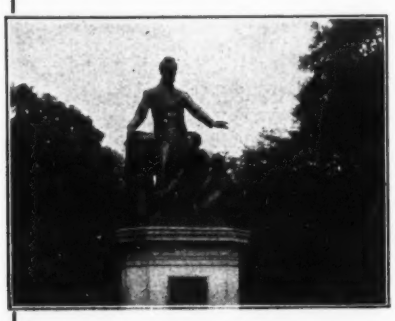

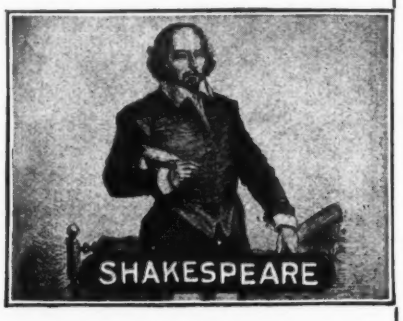

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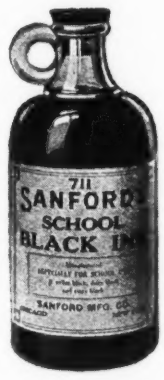

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BOOK REVIEWS

The Development of Children's Number Ideas in the Primary Grades

By William A. Brownell. Paper, 241 pages. Bulletin 35, August, 1928, of the University of Chicago, Chicago, Ill.

The pamphlet gives the results of an experimental study of the development of children's number ideas in the primary grades, and in doing so, presents the findings of group tests given to approximately 1300 children in the first five grades in six schools in Champaign, Urbana, and Danville, Ill. The pamphlet takes up such topics as the difficulty of apprehension of numbers, methods of apprehending visual concrete numbers used by children, factors influencing the development of ability to apprehend visual concrete numbers, and methods of teaching numbers in the primary grades.

Chapter II determines the comparative difficulty of apprehension of the numbers 3 to 12 presented to children in visual concrete form as number pictures. Chapter III studies the methods characteristic of children in the A sections of the first five grades in apprehending visual concrete numbers. Chapters V, VI, and VII take the form of an analysis of the mental processes exhibited by individual pupils in dealing with types of number materials. Chapter VIII brings together isolated facts and suggestions from the preceding material in order to develop a coherent description of the learning processes exhibited in acquiring primary arithmetic and the development of principles for teaching primary numbers which are consistent with the learning process.

Plane Geometry

By Joseph P. McCormack. Cloth, 384 pages. D. Appleton & Company, New York, N. Y.

While this book follows the general arrangement and includes the propositions recommended by various official standardizing groups, it offers a much broader and more inclusive course for high-school use.

The strongest features of the book are the grouping of propositions in connected and logical sequence, the careful grading of exercises, and especially applied and numerical problems. The author has stepped out boldly in adapting to mathematical study those newer ideas of curriculum construction and testing which have been popular in other fields. Running through the book is a clearly defined minimum course, supplemented constantly by additional propositions, exercises, and problems for abler students. Each section of the work is followed by self-measuring tests intended to enable students to find their weaknesses and to overcome them by drill.

The human-interest element is interestingly introduced by means of photographs of great engineering works and a historic outline of the subject.

American Neutrality and International Peace

By Philip C. Jessup. Paper, 170 pages. Published by the World Peace Foundation, Boston, Mass.

This book treats the problems and difficulties arising through the new international situation created by the League of Nations. The book discusses the development of the law of neutrality, postwar developments, and the proposals advance at the present time for outlawing war. The book contains an index and copious references pertaining to original materials. Space is lacking for including the views of many of the writers whose opinions are of importance.

Castle Wonderful

By Johanna Spyri. Translated into the English by Helen B. Dole. Boards, 8 vo., 352 pages, illustrated in colors. Price, $1.50 net. Published by Thomas Y. Crowell Co., New York City.

This story by the author of Heidi will delight any girl. Unfortunately, the translator has attempted to cling too closely in her translation to the original, thus producing an English that is stilted at times, and amusing at others. The story, however, is well worth reading.

Witham Geography

By E. C. Witham, Wilmington, Delaware. Form one, form two, and directions for scoring. Published by the Research Service Company, Los Angeles, Calif.

This is a complete revision of a test first published about ten years ago. It involves 651 geographical references divided into two forms. The author provides evidence that the material has been carefully checked for validity and reliability. Complete norms have been set up. While the author states no time limit, the test has been usually completed in one period of 45 minutes.

It is interesting to know that the test uses all of the most recent scientific information on test construction and content, and that it has been simplified to the point where it can be used in any school, even the smallest rural school.

The Way to Keep Well

By S. Weir Newmayer and Edwin C. Broome. Cloth bound, 264 pages. Published by American Book Company, New York.

This is the third book of the Health and Happiness series brought out by the publisher. It aims to bring to the pupil an appreciation of the value of health, the causes of sickness, and how to retain health. The meaning of air, sunshine, ventilation, breathing, food—all are explained. The pupil is told, too, about the care of eyes, ears, teeth, throat, etc. The laws governing health are adquately discussed.

The text is held in popular style designed to appeal to the child mind. The book is liberally illustrated.

Community Health

By C. E. Turner and Georgie B. Collins. Cloth, 258 pages. Published by D. C. Heath & Co., Boston, Mass.

Public health is here presented for study in the seventh and eighth grades. The authors are happy in their constant application of principles, facts, and methods to the personal interests of the learners, so that children will have a complete appreciation of the value to themselves of public-health measures, and will understand the necessity of cooperating themselves in bettering the hygiene and sanitation of their towns, schools, workplaces, and homes. In language, content, and method, the book is splendidly adapted to the age and ability of the children which it is intended for.

The illustrations are not of uniform quality, or illustrational value. Several are not suited for the age of the learners, or do not illustrate the captions beneath them.

Adult Learning

By Edward L. Thorndike and others. Cloth, 347 pages. Price, $3. The Macmillan Company, New York, N. Y.

The old-time educator, who considered it an incontrovertible axiom that adults cannot learn with the facility or effectiveness of children and adolescents, will receive this book with a distinct shock. In fact, every schoolmaster who accepts its implications, will find in it cause for concern in relation

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with the present policy of sending practically all children to high school, and of making schooling compulsory to the age of 16 or even 18. Briefly stated, the book reports the facts found in a series of wide studies of the ability of adults to master a variety of subjects, particularly the common high-school subjects, modern languages, secretarial subjects, and special subjects involving particular aptitudes and skills. The research reported is sufficiently detailed to take into account changes in ability at different age limits, particularly between 25 and 45 years. To guard against error, such important psychological and economic factors as the learning ability of persons of high intellectual ability and of low intellectual ability, interest, carelessness and impulsiveness, ambition, experience, immediate necessity for learning, etc., were taken into account. Altogether, the authors found that an old dog can be taught new tricks; in fact, he learns them practically as well as does a young one, and he has many advantages due to experience, understanding of the value of his study, ambition, and immediate application of facts, skills, and new habits. The findings, if stripped of their technicalities, afford a vast fund of encouragement for the adult with capacity to learn new subjects, whether these be cultural or vocational.

It is impossible to agree with the authors in all their findings, but two of the numerous practical applications which they make from their studies are likely to disturb the complacency of schoolmen. It seems to be well established that educators can no longer be dogmatic concerning compulsory education after the age of 13 or 14, or the inability of adults to enter upon studies involving memory, new skills, and new viewpoints of life. The first of the authors' practical findings is in the fact that for many boys and girls between the ages of 14 and 20, work is more valuable than school. Provided the work is of the right kind, there is no question that participation in adult activities and self support stimulate inner growth, develop a maturer viewpoint, and provide valuable experiences. The danger here is that children will be exploited for their labor, a real danger that will be difficult to obviate entirely.

A second disturbing implication is the certainty that education will more than ever depend upon the personal desire and initiative of the learner, and that all educational service, particularly the content of courses and the teaching method, will of necessity be required to pass the test of the learner's approval, of his interest, and of his appreciation of its immediate value. That means that the educator cannot, in the quiet of his office, set up objectives, block out courses, and lay down regulations concerning academic standards, all of which students must accept without understanding or question. As adult education progresses, teacher and learner will be more nearly on planes of adult equality; schooling will lag less behind the findings of science and technology; the teacher will be less of the autocrat who imposes his will and his opinions upon immature minds; and there will be less of the rigidity of the social order which condemns to menial occupations, most people who are unable to enjoy uninterrupted schooling through their teens.

Aptitude Testing

By Clark L. Hull. Cloth, 535 pages. Price, $2.68. Published by the World Book Company, Yonkers-on-Hudson, N. Y.

The study of tests, and their development and application, have been limted so largely to schools and colleges that the broader field of usefulness in industry, commerce, public service, and in a vast variety of human activities has been largely neglected. The use of tests in the army during the late war astonished the students of tests and awakened many persons to the possibility of developing and using tests for varied purposes where objective and accurate judgment of men and women is essential.

The present book is an answer to the demand for a fundamental statement of the psychological principles and the technical methods which are involved in developing and using batteries of tests of special human aptitudes or of groups of aptitudes required for special life activities or occupations. The approach is entirely practical and the discussion of psychological principles is limited to what may be termed the mechanics of various significant traits or talents which are of use in the vocations and common activities of everyday life. The discussion of technics for preparing tests will hardly prepare the student to attempt any elaborate original tests without very considerable supplementary study, but it will prepare him to make an intelligent critical study of any battery of tests which he desires to use. The book seems to be a trifle too optimistic in its assumption of the inherent predictive value of tests.

How to Measure

By Guy M. Wilson and Kreme J. Hole. Cloth, 597 pages. The Macmillan Company, New York, N. Y.

This is a revision of the first practical book which brought the subject of testing within reach of the average teacher. While the reviewer disagrees with a few of the assumptions of educational principles, he cannot but agree that the untechnical statements on the construction and use of tests exceeds every other present book for clearness, simplicity, and usefulness to classroom workers.

Story Games

By Smedley and Olsen. Paper, 38 pages. Price, single copies, 48 cents. Hall & McCreary, Chicago, Ill.

This silent reader for the second grade correlates number work, writing, spelling, and drawing in a series of clever games. Child interests based on the circus, animals, the farm, Indians, trains, the clock, are strongly emphasized. Excellent illustrations and a well-balanced vocabulary contribute to the instructional value of the book.

Fairy Folk Stories and Pictures

By Miriam M. Swain. Paper, 32 pages. Price, 16 cents. Hall & McCreary Co., Chicago, Ill.

This silent reader for third and fourth grades includes a series of pictures to be colored. The material is suitable for oral retelling.

Anfänger Deutsch (Beginner's German)

By Jacob Wilhelm Heyd, A.B., Ph.M. Cloth bound, 212 pages. Price, $1.28. Published by The Bruce Publishing Company, Milwaukee, Wisconsin.

Here is a German language book and grammar. It is divided into three parts. The first is provided with language lessons and a series of simple stories and folklore. The vocabulary employed in the lessons enables the student to read the texts understandingly. The literature—namely the stories and folklore—is selected with discriminating care. Out of the vast treasure of German literature the most interesting and instructive things have been chosen. They lend charm and delight to the studies.

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(Concluded on Page 151)

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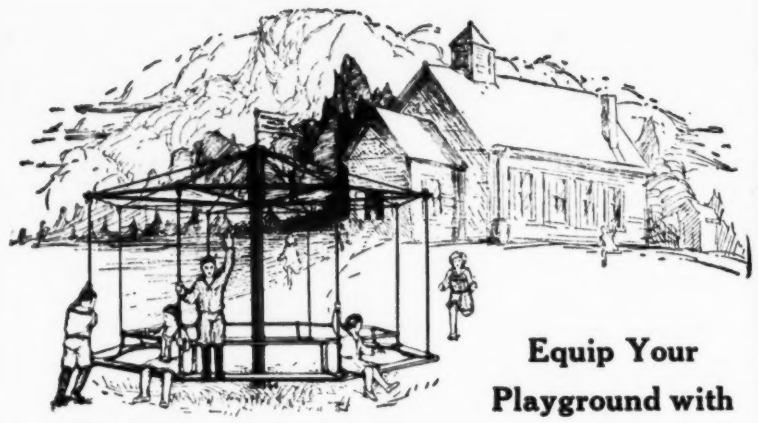

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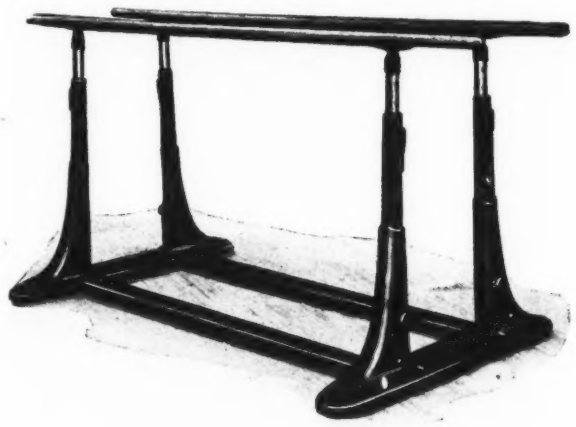

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(Concluded from Page 148)

the student in easy stages into the mysteries of the grammar studies and repeats the German equivalent in English.

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This language book is built upon the thought that it is more practical to take a position somewhere between the extreme direct and the so-called translation method. The author holds that a beginning course in a modern language is best based on interesting reading material. He is also convinced that the mechanics of a foreign language are best understood if explained in the native language.

Essentials of Upholstery

By Herbert Bast. Cloth, 175 pages. Published by The Bruce Publishing Company, Milwaukee, Wisconsin.

This is an attractive textbook on the art of upholstery. Part I engages in a study of upholstery tools and equipment. Benches, hammers, webbing stretchers, needles, and shears are described in word and picture. Then the several processes are entered upon. The amount and location, tacking and stretching of webbing, number and size, placing and fastening of springs, etc., etc.—in fact, some 22 processes are engaged in. These are amply explained and splendidly illustrated.

Part II engages in typical jobs—some sixteen in number. There are padded seats, stools, chairs, sunburst pillows, slumber rolls, davenports, etc. The illustrations are so arranged that they show the form of construction as well as the finished part.

Part III deals with materials, their sources and manufacture. Cotton, jute, flax, moss, wood wool, sea grass, cocoanut fiber, curled hair, silk floss, burlap, leather—in fact all the materials usually employed in upholstering are thoroughly described.

The several lessons—processes and typical jobs—are followed by questions to be presented by the instructor.

Living Latin

By Claire C. Thursby and Gretchen D. Kyne. Cloth, 482 pages. Published by the Macmillan Company, New York City.

Roman life and customs, Roman history and institutions, and the literature and language of the Romans all have interest and significance for present-day Americans and American life. The present book makes use of these facts to develop a first-year Latin book of exceptional interest and original content. The general arrangement is that of conventional lessons, beginning with a brief Latin story, followed by an explanation of grammatical principles, one or more exercises, and an application of one or more of the new words to our language. Each lesson closes with an explanation of some fact, custom, or institution of Roman life which has present significance.

The lessons are extremely simple and proceed in easy stages. The subject matter, the development of language principles, and the directions and explanations reflect an interest in the subject, an enthusiasm for Roman life, and an understanding of and a sympathy with the young learners that altogether make the book justify its title.

The vocabulary has been studied with later high-school and college requirements in mind. The appendix offers, in addition to formal summaries of rules, paradigms, and lesson vocabularies, a series of suggestions for games, study helps, etc.

Elementary Science by Grades

Book three. By Ellis C. Persing and Elizabeth K. Peeples. Cloth, 276 pages. Published by D. Appleton Company, New York, Chicago.

Third and fourth-grade children will enjoy these stories of plants, insects, birds, domestic animals, trees, etc. In all, there are 37 lessons arranged seasonally and affording work for one period per week for the entire school year.

The book should appeal quickly for use as a silent reader and as a basis for simple project work in science. The illustrations are particularly well chosen and interesting. The suggestions for teachers assume that the teacher has had little or no experience and requires a maximum of help.

Essentials of Junior-High-School Mathematics

By Samuel Hamilton, Ralph P. Bliss, and Lillian Kupfer. Cloth, 224 pages. Published by the American Book Company, New York City.

Work for the seventh grade. The authors strongly emphasize the prevocational possibilities of arithmetic and introduce simple algebraic and geometric concepts.

The drill and review material, supplementary problems, and new-type tests add materially to the teachability of the book.

Spanish Composition and Grammar Drill

By William E. Knickerbocker and Americo U. N. Camera. Cloth, 213 pages. Price, $1.24. D. Appleton & Co., New York.

This second-year book is intended for students who have completed the elementary study of grammar.

Indian Heroes

By J. Walker McSpadden. Cloth, price, $2. Published by Thomas Y. Crowell Company, New York.

The story of the great Indian chieftans and warriors, from the Manhattans of the sixteenth century, to the Sioux of recent years. The author is more sympathetic with the viewpoint of his heroes than history seems to warrant.

The Preparation of a Long-Term Financial Program

By C. G. Rightor. Paper, 28 pages. Price, 25 cents. Bulletin No. 5, 1927. Published by the Municipal Administration service, 261 Broadway, New York City. The pamphlet discusses the problems of long-term financial planning. It gives the experience of a number of cities with long-term financing, offers some instructions as to the program, the means of financing improvements, the period included in the program, and the cooperation necessary to bring about a satisfactory and adequate program of long-term financing.

Conserving the Sight of School Children. A program for schools prepared under the direction of Dr. Thomas D. Wood. Published by the National Society for the Prevention of Blindness, New York City. The purpose of the pamphlet is to supply teachers, school officials, and others concerned with the problem, information, advice, and practical directions for promoting the conservation of eyesight among school children. It represents the best available and most dependable information on testing eyes and conserving vision in the schools, and the methods used in testing, recording, and classifying conditions or types of eyesight have been made as uniform as possible to fit the requirements of schools. The pamphlet discusses such points as approved practice in eye inspections, knowledge essential for the teacher, the school nurse, and the school physician in the conservation of vision.

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CHICAGO CORRESPONDENCE

On Tuesday, September 4, the Chicago public schools opened their doors to a half million children. September 4 was the opening day for eight new elementary schools completed during the summer.

It requires from ten to a dozen new school buildings each year to take care of the annual increase in the number of pupils. This fact, coupled with the fact that during and following the world war there was very little construction, makes the housing situation fairly critical. That is, the accumulated shortage from former years presents a serious problem. Mr. H. Wallace Caldwell, president of the board of education, does not regard the seat shortage as very vital, but it is serious enough to occupy the attention of the trustees. There are 675 portable temporary buildings in use at the present time.

Apparently the chief concern of the trustees in this matter centers around the question of finances for new buildings. According to press reports, the board is planning a new type of revenue scheme involving either state legislation, or bonding. Chicago is one of the few cities in the country which builds its schools, additions, and permanent improvements out of current taxes. Some citizens think it sounder to build by means of serial bonds, maturing at regular intervals, and spreading the tax burden evenly over a period of years. Others, while lamenting the extra burden placed upon the present taxpayers by a huge building program to meet the accumulated shortage, nevertheless fear extravagance under a bonding plan. They point to the payment of both principal and interest. The mayor favors a bonding plan.

The director of the bureau of public safety of the board of education has announced a plan whereby school children killed in street-traffic accidents will be the means of warning others. He plans to have the funeral processions go by the child's school so that his comrades may witness it and have a grim object lesson on the results of carelessness.

The attitude of the teachers, principals, and public toward the new administration of Supt. William J. Bogan, and President H. Wallace Caldwell, may be shown in the following editorial from the Herald-Examiner of August 24:

"As the schools are about to open there is a decided, if still vague, feeling that the situation is improved. The new head of the board has impressed those who have come in contact with him with the belief that he knows his way around. The new superintendent is as well acquainted with the facts of school life in Chicago as anybody in the world; more than which, he is intelligent, firm, and friendly. And between the administration and Mr. Bogan, and Mr. Bogan and the teachers, there is harmony. We look for a school year which in zeal, enthusiasm, and freedom will be an advance upon the past."

The city of Chicago has ambitious plans toward making the city an air center. In line with this comes a certain proposal involving the use of some school lands. The school board owns 640 acres at the southwest outskirts of the city. The city owns a beautiful beach along Lake Michigan on the north side. Furthermore, the school board is said to be in need of a site on the north side for an educational center. It is proposed that the city and the school board exchange 99-year leases on their respective sites. The city would like to develop the square mile of school lands into a huge airport.

The report of George B. Masslich, superintendent of the Chicago and Cook County School for Boys, a corrective institution, reveals some interesting vital statistics about delinquent boys. The institution receives 800 boys a year although its capacity at any given time is only 129. Thus the turnover is very marked, and the influence of the school on the boys would seem to be very small judging by the short time it has to work on them.

Sixty-three per cent of the boys are white; 37 per cent negro. The range of ages is from 11 years 6 months to 17 years with an average age of 14 years 5 months. The average boy is retarded three school years. The intelligence quotients range from 135 to 57, with an average intelligence quotient of 85.

Eighty-four per cent of the boys are from public schools, the remainder come from parochial schools. Thirty-two per cent are repeaters, having been previously sent to the institution by the courts. In religion, 53 per cent are Catholic, 45 per cent Protestant, and 2 per cent Jewish. Sixty-seven per cent of the boys come from homes which are not normal, that is, both parents alive and living together (other home conditions are not inquired into in this rating).

The causes for the boys' delinquency are listed in the superintendent's report as follows: Larceny, 35 per cent; burglary, 30 per cent; auto larceny, 12 per cent; vagrancy, 12 per cent; incorrigibility, 5 per cent; sex offenses, 3 per cent; assault, 2 per cent, and truancy, 1 per cent. Most of the boys are truants, even though the charge which leads to their commitment is rarely truancy alone.

Mr. John C. Christensen, school-board architect for the past 23 years, has resigned because of ill health and has gone to the Mayo Hospital at Rochester, Minn., for examination and treatment. This is the third time Mr. Christensen has offered his resignation but each time it has been refused. At one time he was appointed state architect but the school board did not release him. Mr. Christensen has been responsible for millions of dollars' worth of school-building construction during the long period of his incumbency. A resolution of regret was adopted by the school board at the time in accepting Mr. Christensen's resignation.

—Columbus, Ohio. The public schools began the school term with an enrollment of 41,384 students, or 406 more than attended school the first week of last year. An additional 500 students are expected to enroll during the next few weeks.

—Duncan, Okla. A tuition fee of $2.50 for nonresident grade pupils, and $5 for high-school students has been adopted.

—Akron, Ohio. Overcrowding and disturbing conditions faced the school authorities with the opening of schools in September. The total attendance for the first week of school was estimated at 39,916, which was an increase of more than 2,500 students. The high school reported an attendance of 7,048.

The larger part of the increase has been attributed to natural growth in enrollment, and to the entrance of 900 children below the 5½-year age limit of last fall. The school board will provide relief for the situation through portable buildings and rented rooms.

—Mr. Robert G. Sproul, vice-president and comptroller of the University of California, has been named by the board of education of Berkeley, Calif., as a member of the board.

—Mr. Kent Kelley has been appointed as superintendent of schools in Green county, Pa., to succeed H. D. Freeland, who has resigned.

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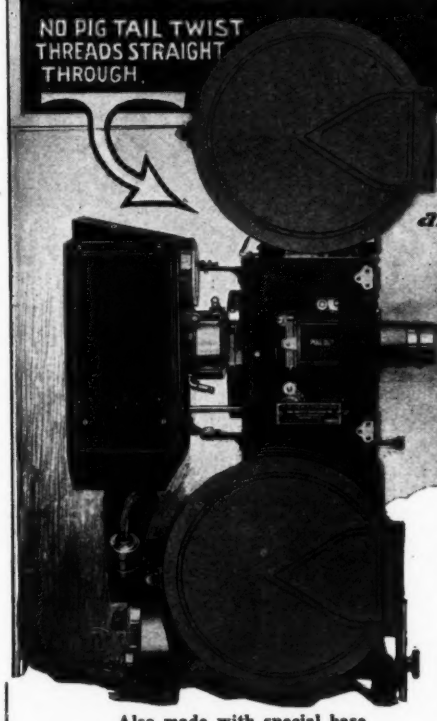

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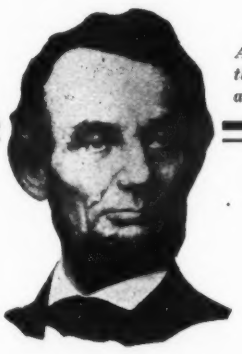

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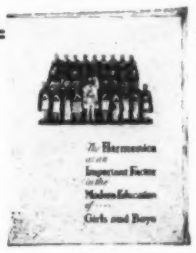

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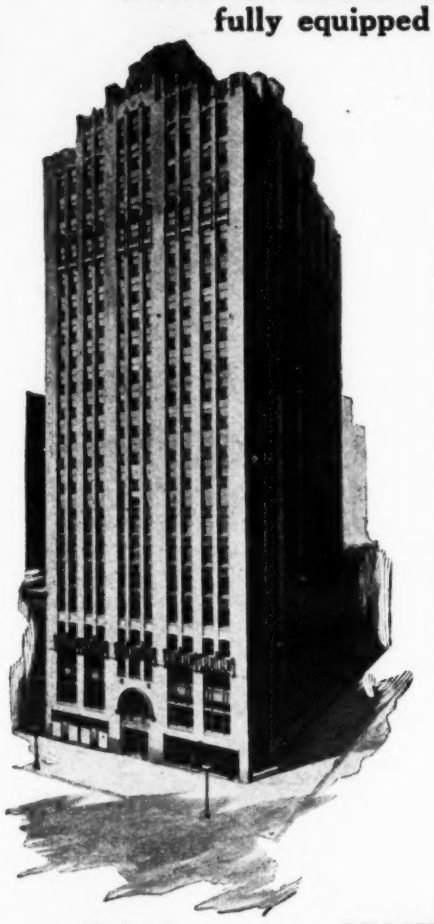

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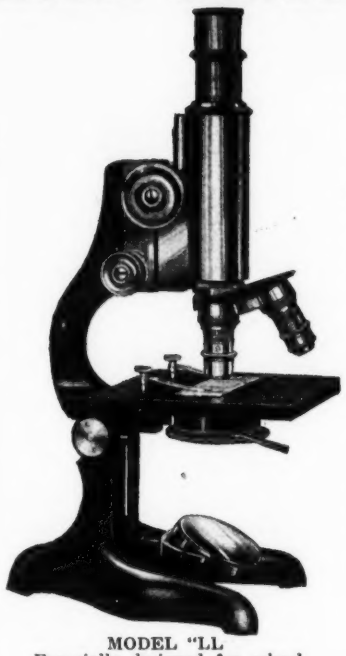

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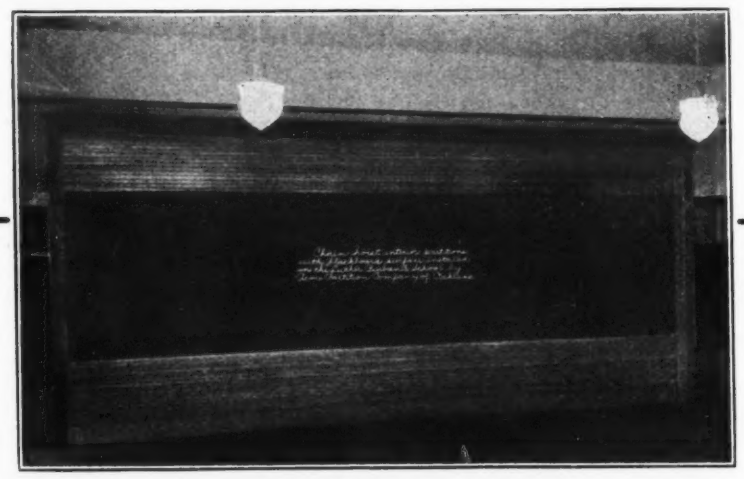

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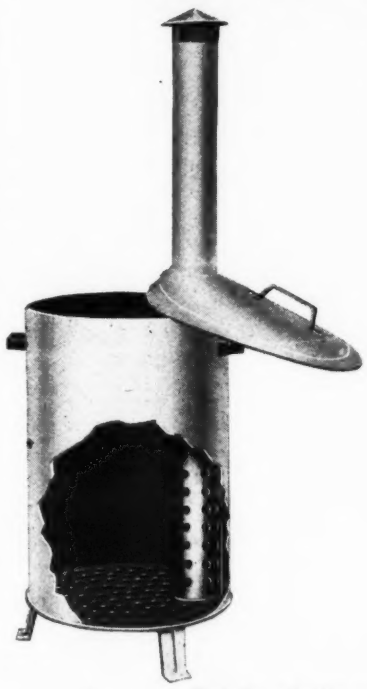

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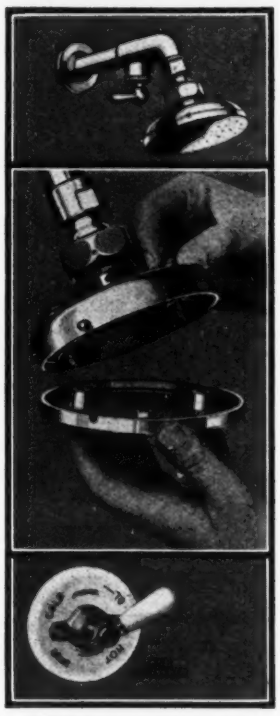

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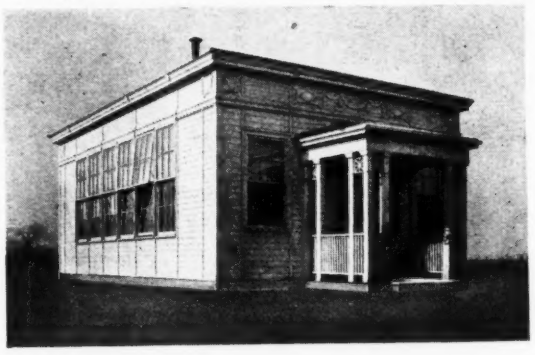

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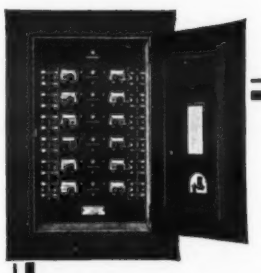

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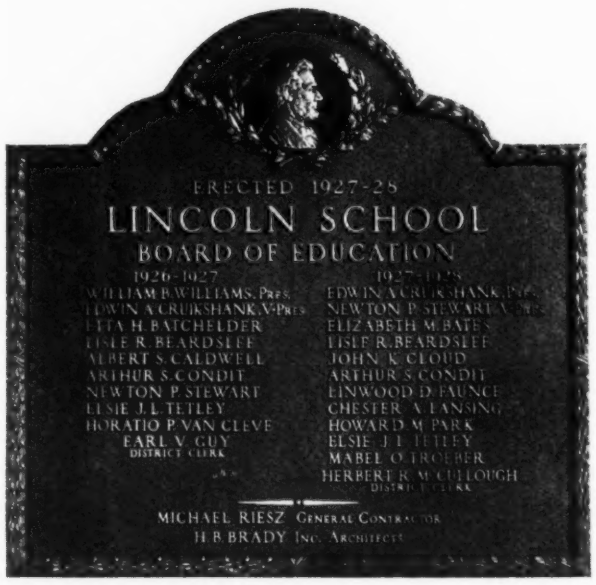

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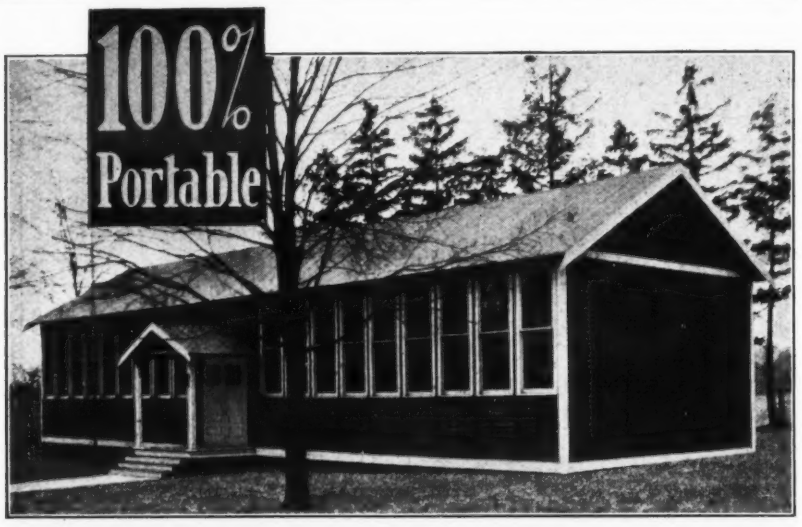

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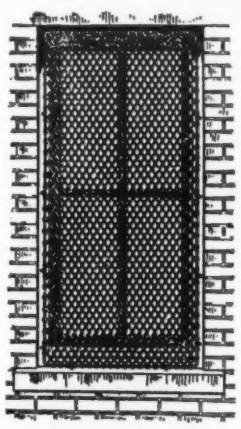

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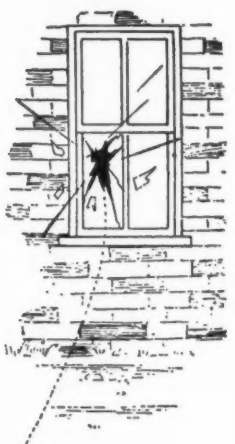

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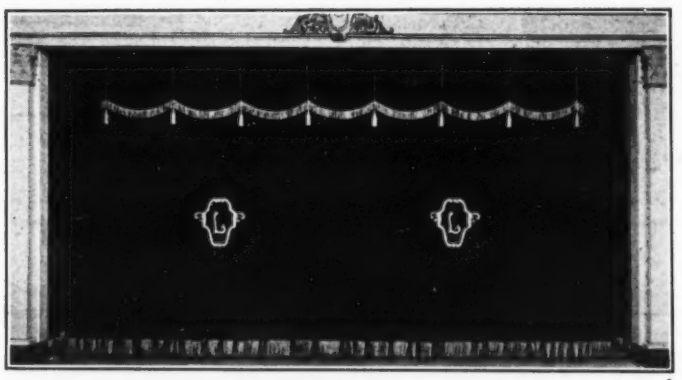

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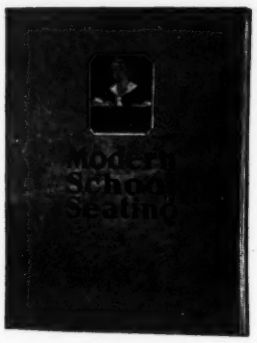

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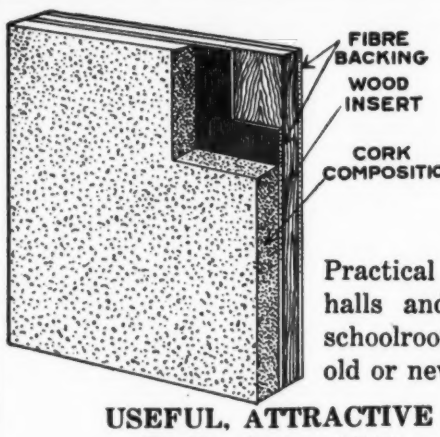

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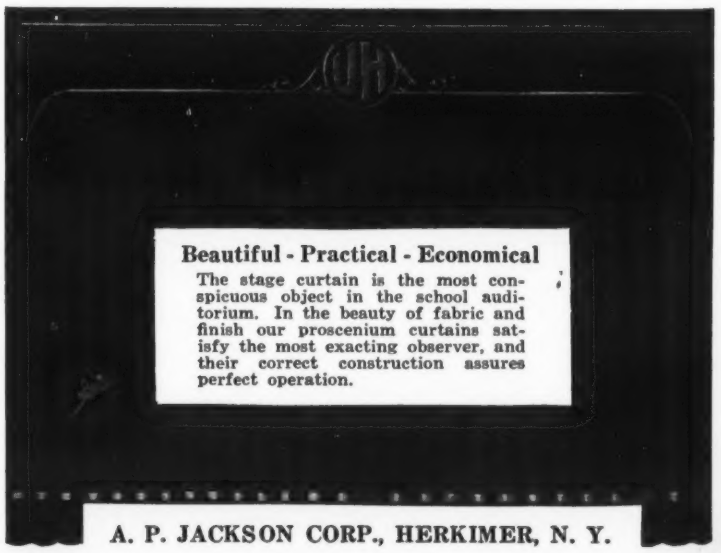
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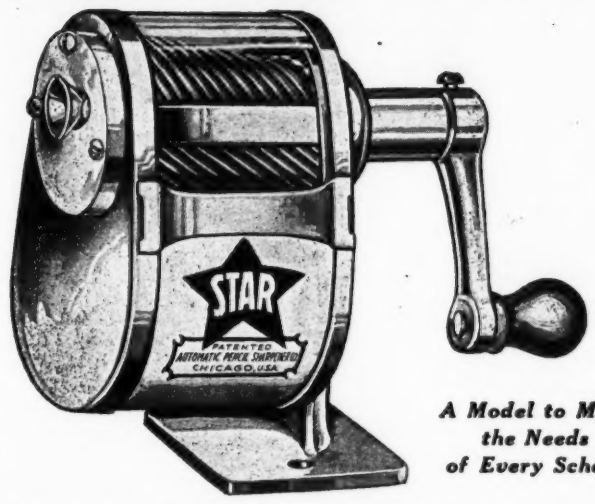

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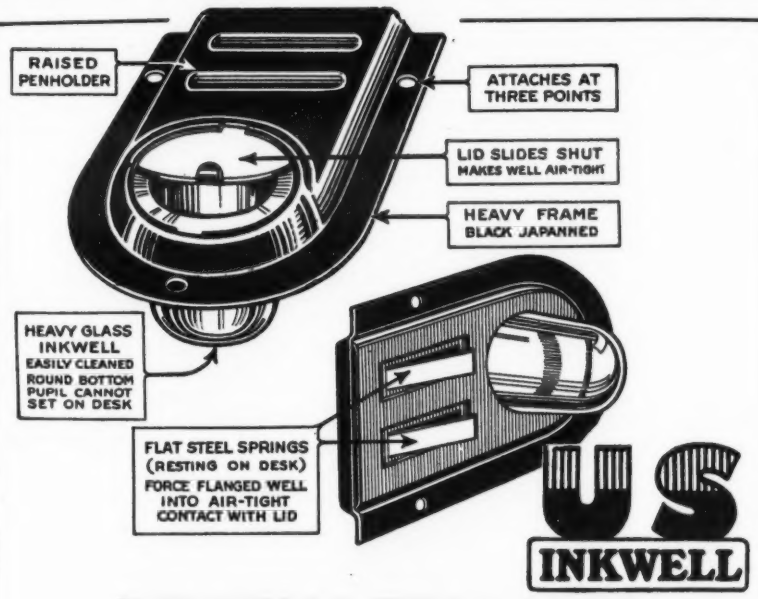

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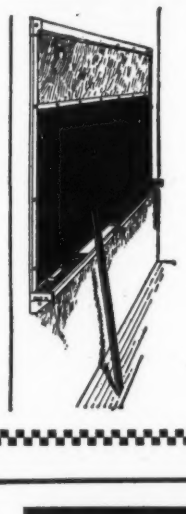

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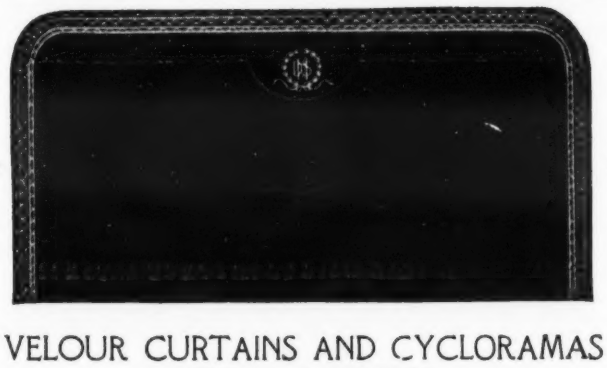

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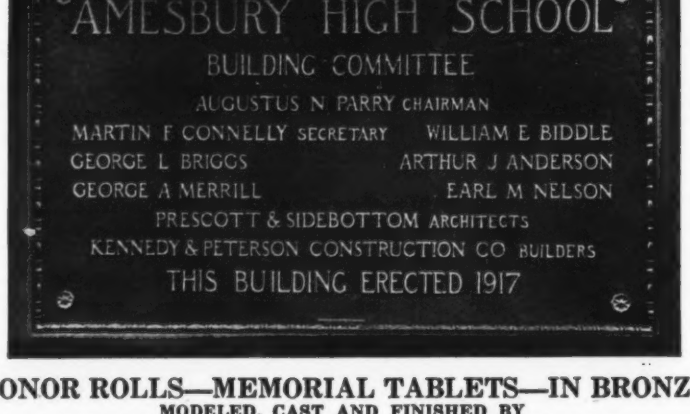

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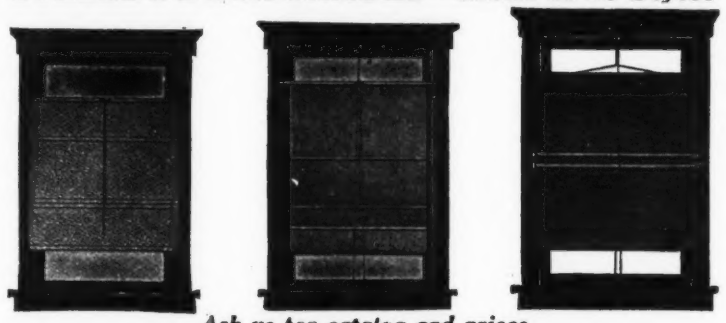

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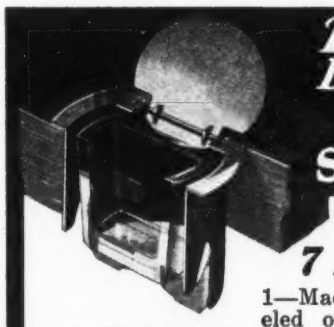

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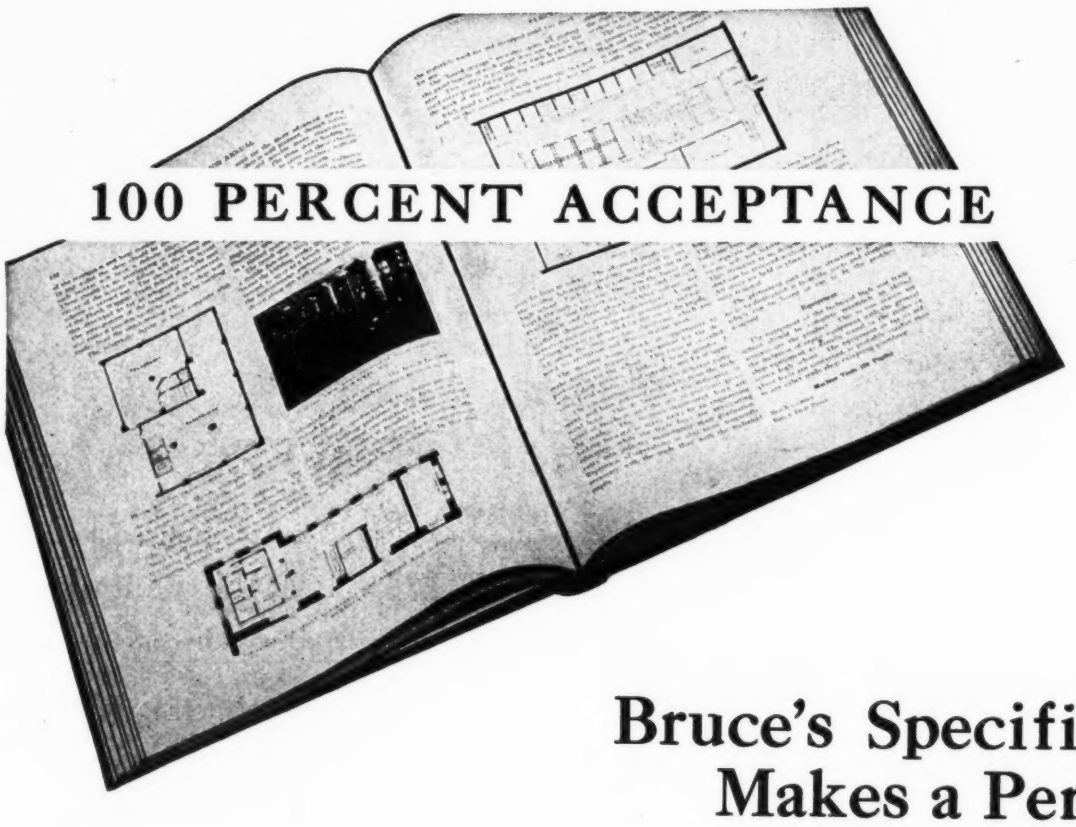

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School Board Journal

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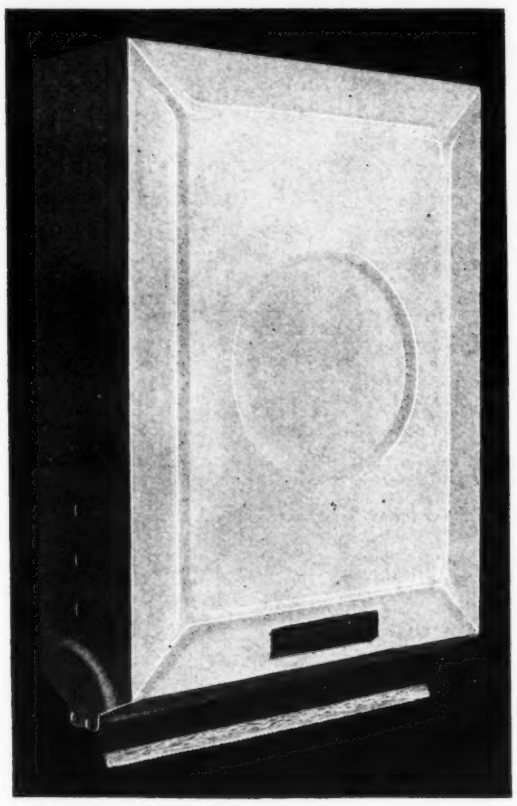
(Continued on Page 169)

NIBROCS for HEALTH



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(Continued from Page 167)

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- **Hill-Standard Company**
- **Mitchell Manufacturing Co.**
- **Narragansett Machine Company**
- Potter Manufacturing Corp.

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- **Clow & Sons, James B.**
- **Hoffmann & Billings Mfg. Co.**
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- Clarke Sanding Machine Company

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- **Clarke Sanding Machine Company**

SAFETY STAIR TREADS
- **American Abrasive Metals Co.**
- Safety Stair Tread Co., The

SASH OPERATING DEVICES, Steel
- David Lupton's Sons Co.
- **Detroit Steel Products Company**

SASH, STEEL
- **Detroit Steel Products Company**
- **Lupton's Sons Co., David**

SASH, VENTILATING
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- **Rowles Co., E. W. A.**
- **Standard Electric Time Company**

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- Trans-Lux Daylight Picture Screen Corp.

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- **Continental Chemical Corporation**
- **Finnell System, The**

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- **Clow & Sons, James B.**
- **Hoffmann & Billings Mfg. Co.**

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- **Beckley-Cardy Company**
- **N. Y. Silicate Book Slate Co.**
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SOAP DISPENSING EQUIPMENT
- Palmer Products, Inc.
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- **DeVilbiss Mfg. Co., The**

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- **Acme Scenic Studios**
- **Beck & Sons Co., The Wm.**
- **Kansas City Scenic Co.**
- **Lee Lash Studios**
- **Novelty Scenic Studios**
- **Tiffin Scenic Studios**
- **Twin City Scenic Company**
- **Universal Scenic Studios, Inc.**

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- Vitek Manufacturing Co., Inc.

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- Institutional Supply Co., Inc.
- Kimball Company, W. W.
- Remington Rand Bus. Service, Inc.
- Rineheimer Bros. Mfg. Co.

TABLETS
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TEACHER AGENCIES
- **Natl. Assn. of Teacher Agencies**
- **Teacher Agencies Directory**

TELEPHONE SYSTEMS
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- Standard Electric Time Company

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- **Buffalo Forge Company**
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- Invincible Vac. Cleaner Mfg. Co.

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- **Dunham Company, C. A.**
- **Nelson Corp., The Herman**
- **Peerless Unit Vent. Co., Inc.**
- **Sturtevant Company, B. F.**

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- **Globe Ventilator Company**
- **Lupton's Sons Co., David**

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- **Buffalo Forge Company**
- **Christiansen, C.**
- **Columbia School Supply Co.**
- **Kimball Company, W. W.**
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WATER SYSTEMS
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- **Austral Window Company**
- **Mutschler Brothers Company**
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- **Universal Window Company**
- **Williams Pivot Sash Company**

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WINDOW GUARDS
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- **Badger Wire & Iron Works**
- **Stewart Iron Works Co., The**

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- **Williams Pivot Sash Company**

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WINDOW SHADE ROLLERS
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- **Detroit Steel Products Company**

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- **Badger Wire & Iron Works**
- **Cyclone Fence Co.**
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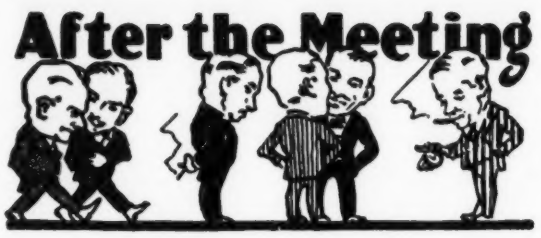

Teach 'Em and Forget 'Em

Mr. A. R. Evans, superintendent of schools, Corbin, Kentucky, illustrates in a story the attitude on the part of some teachers to think that, just as soon as boys and girls graduate, teachers need not have any more interest in them. Here's the story:

In slave times, negroes had to get permission of masters to join the church. Uncle Ephraim came to his master and asked that he might join the Methodist Church. Not many weeks later he requested that he might join the Presbyterian. Here he did not tarry long and next asked to go to the Episcopal. There was the same result and finally Ephraim ended up in the Baptist Church. To his master's surprise he stayed.

So his master said to him one day, "Ephraim, how is it that you stay in the Baptist Church? You soon left the others."

"It's like this, Massy," said Ephraim, "the Methodists shout and make too much noise; the Presbyterians are too proud and uppity; and as for the Episcopalians, I could not tell when to stand up or sit down. But the Baptists jist suits me ezactly. They just dip 'em and then drop 'em."

A Modern Version

Mr. C. R. Reed, superintendent of schools, Bridgeport, Connecticut, formerly superintendent of Akron Schools, tells the story of how pupils sometime get the wrong slant, due to a few parents willing to believe anything against schools, or to think that the teachers say anything that comes into their minds. There is need for more mutual understanding between parents and teachers. Here's the joke:

Bridgeport has a chain of grocery stores which operate under the name of Davey Brothers. These stores make quite a feature of their bread which is sold extensively throughout the city.

One day a mother came to one of our principals and rather indignantly protested because the teachers were advertising Davey bread in the schools.

Upon investigation it was discovered that during the opening exercises the Lord's Prayer was said in concert and the expression "Give us this day our daily bread" had been reported at home by the child as "Give us this day our *Davey* bread."

This is just one of the misconceptions which children often take home from school.

Dangerous Confessions

John O. Chewning, superintendent of schools, Evansville, Indiana, quotes a story told by Martin J. Wolfe, Chicago, Ill.

Rev. George Washington Jackson had lost a fine, fat 'possum. Later, at a revival, one of the grief-stricken mourners would not be comforted.

"Cheer up, brothah," exhorted Rev. Jackson. "No mattah what yo' sin, it will be fo'given."

"But not diss'un," sobbed the mourner. "Ah sho' am a pow'ful sinnah."

"Yo' stole some white man's chickens?"

"Wussen 'at."

"Oh, Lawd, help dis po' lamb. Has yo' used a razzuh?"

"Wussen 'at. It's wussen murdah, Brothah Jackson."

"Den ah knows," shouted the preacher, coming down from the pulpit, peeling his coat. "De good Lawd fo'give yo' effen He feels dat a way, but ah's gwine to massacrate yo'! Yo's de skunk what stole mah 'possum."

Teachers' Salaries and a 100 Per-Cent Teacher

Mr. Edward R. Johnson, who is in charge of the division of publications, South High School, Columbus, Ohio, tells a story that fits in very well with some of the N. E. A. reports on salaries of rural teachers. The teacher in the story is just a little sarcastic but perhaps she is not to be blamed. Here is the story:

A school marm of a certain impoverished district presented the check representing her meager monthly wage to the cashier of the village bank for payment. He counted out a few badly soiled bills and as he passed them through the window apologized for their condition. "Oh, that's all right," the teacher replied, "no microbe could live on my salary."

Why Willie Couldn't Come

Little Willie Dolan lived in the country and attended the district school. It was a cold winter and the snowfalls were heavy and frequent. Miss Duffy, his teacher, was strong for order and regularity, and Willie's mother had many an excuse to write to satisfy her teachership. She finally tired of it, and when the next notice was brought home by Willie (it happened to snow heavily the day before) she wrote this short note in reply:

Dear Miss Duffy: Little Willie's legs are nineteen inches long and the snow was six foot deep.

Very truly,
Mrs. James Dolan.

IN THE OLDEN DAYS A TEACHER WAS KEPT SEVERELY
"IN HIS PLACE"
BUT LATER GOT A LITTLE ENCOURAGEMENT—
BY THE END OF THE CENTURY HE WAS EVEN NOTICED IN THE STREETS
AND NOW RECOGNISED AS A VALUABLE CITIZEN
PREMIERS, LORDS & MAYORS COME TO TALK TO HIM—
SOON PEOPLE WILL TURN OUT TO SEE HIM OFF TO SCHOOL

THE SOCIAL PROGRESS OF THE TEACHER
—London Teachers' World.

BUYERS NEWS

NEW BAUSCH & LOMB OPTICAL EQUIPMENT CATALOG

The Bausch & Lomb Optical Company of Rochester, N. Y., has just issued a new 79-page catalog showing the latest contributions of optical science to the science of medicine. The catalog also contains a section devoted to ophthalmic and diagnostic instruments, and another showing projection and photographic equipment for advanced methods of instruction.

NEW SPEEDMATIC FLOOR SANDER

The Porter-Cable Machine Co., of Syracuse, N. Y., has announced the marketing of its "Speedmatic," type F-8 floor surfacer for use in the repair and upkeep of schoolroom floors.

The machine is of precision ball-bearing construction, is light in weight, and has an ordinary pressure of 45 lb. Pressure to the drum may be applied by a single self-locking hand lever of the toggle-action type, which gives the operator greater control power, yet is simple and easy to operate.

The special features of the machine are its ease of operation and smoothness of handling. Built on the same lines as the former heavy-duty type F-12 machine, this small surfacer loses nothing in cutting efficiency for the reason that the powerful 1-h.p. motor drives the small diameter high-speed drum at 2,200 r.p.m. This, combined with a maximum pressure of 95 lb., is sufficient for almost any type of work. The machine will sand within 5/8 in. of the baseboard, which can be covered by the quarter round. It also sands within 3 in. in the front.

Complete information and price lists may be obtained by writing to the Porter-Cable Company at Syracuse, N. Y.

ANNIN FLAGS FOR BYRD ANTARCTIC EXPEDITION

Annin & Company, New York, manufacturers of flags and banners for all occasions, recently received the order for all the flags used on the ships of the Byrd Antarctic Expedition and for supplying the base stations, the airplanes, and personal flags used by Commander Byrd in his recent expedition.

In giving the order to the Annin Company, Commander Byrd followed a long tradition. Annin & Company have made the flags for all important scientific expeditions as far back as 1853, when flags were made for the Kane Expedition in search of Sir John Franklin. In 1909, the firm made the flags carried by Commander Robert Peary in his expedition to the North Pole. The MacMillan Expedition to Crocker Island was also fitted out by the Annin Company.

DAMROSCH CONCERTS FOR SCHOOLS

—The Radio Corporation of America, of New York City, has announced the completion of plans for broadcasting the Damrosch concerts in the schools. These concerts will be broadcast in the schools each Friday, from October 26 to May 10, over WJZ, New York, and the associated stations of KDKA Pittsburgh, WTMJ Milwaukee, WJR Detroit, WOC Davenport, WDAF Kansas City, KYW Chicago, and WRC Washington.

All of the concerts have been planned primarily to induce a love and appreciation for beauty. The material selected for the lower grades deals with music in nature, music and moods, types of dances, and the tone quality of instruments. In the junior and senior high schools, the programs are presented largely as music literature.

THE COST OF COMFORT

The Cost of Comfort is the title of a new publication of the National Lumber Manufacturers' Association which is of much value to school boards, superintendents, and architects.

The publication which can be obtained gratis by school authorities, has to do with the various types of house construction in relation to their heat-retaining properties. It is called a "handbook of the economics of dwelling insulation."

Recent years have seen a vast amount of publicity given to the advantages of insulated houses. Buildings thus protected are warm in winter and cool in summer. Such desirable conditions are well worth while, not only from the standpoint of comfort and economy, but from the standpoint of health. "The Cost of Comfort" details with more than 35 types of wall, floor, and roof construction. It describes the question of insulation in language easily understood. What it depends on; what it costs; how to figure the cost; the insulating value of various materials; the basis of measuring heating-equipment costs; the scientific method of estimating annual heating costs; and other points.

IN TUNE

INTERIOR OF THE NEW LIBRARY BUILDING AT GREENWICH, CONN.
W. B. Tubley, Architect *Elizabeth P. Clarke, Librarian*

THERE'S harmony between building and equipment at the public library of Greenwich, Connecticut. L. B. designers have aptly caught the architect's governing plan. They have developed furnishings which accord beautifully with the library's magnificent new home.

This tendency is dominant in present-day library architecture. Both walls and equipment of your new library should be created simultaneously. And right there is where Library Bureau has help for you.

L. B. library specialists will cooperate with your architect to the utmost, bringing into play their wide knowledge of the librarian's administrative needs and lending freely their incomparable experience in furniture design. Backed, of course, by the world's largest and oldest makers of technical library furnishings. Write the nearest Library Department headquarter point for details.

Library Bureau

DIVISION OF

Remington Rand Business Service Inc.

Headquarter points of the Library Department

451 Broadway, New York City
214 W. Monroe St., Chicago, Ill.
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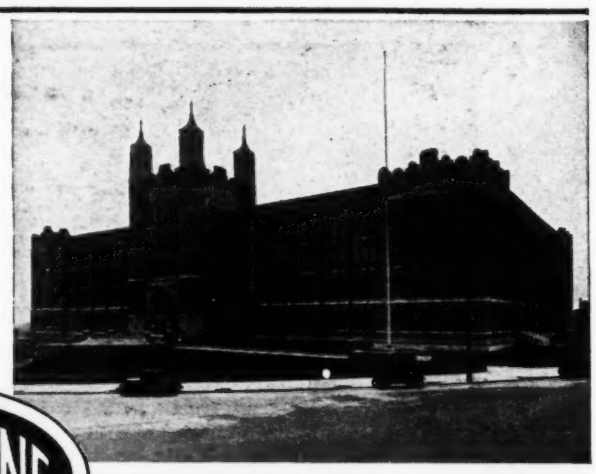
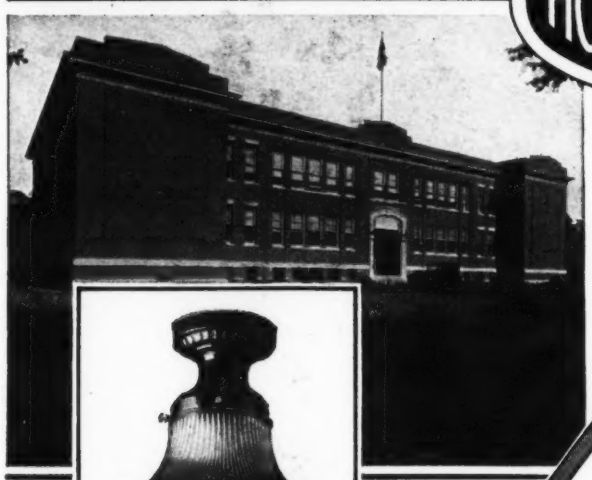
1200 S. Grand Ave., Los Angeles, Cal.
89 Second St., San Francisco, Cal.



HOLOPHANE
TRADE MARK



PLANNED LIGHTING

Good school lighting saves physical, nervous and mental energy and permits the average pupil to accomplish more work in a given interval of time.

Statistics show the average public schooling cost per pupil is approximately $300.00 per year. Many pupils that now lose from one term to one year during their public school life, lose this time and cause the community this extra expense only because of poor lighting.

The best artificial as well as natural lighting is the cheapest in the long run for your community. Holophane Planned Lighting for your schools will conserve your children's sight and save public money.

PLANNED LIGHTING is the name given to artificial lighting installations PLANNED by HOLOPHANE LIGHTING ENGINEERS for SPECIFIC APPLICATION and employing HOLOPHANE LIGHTING SPECIFICS.

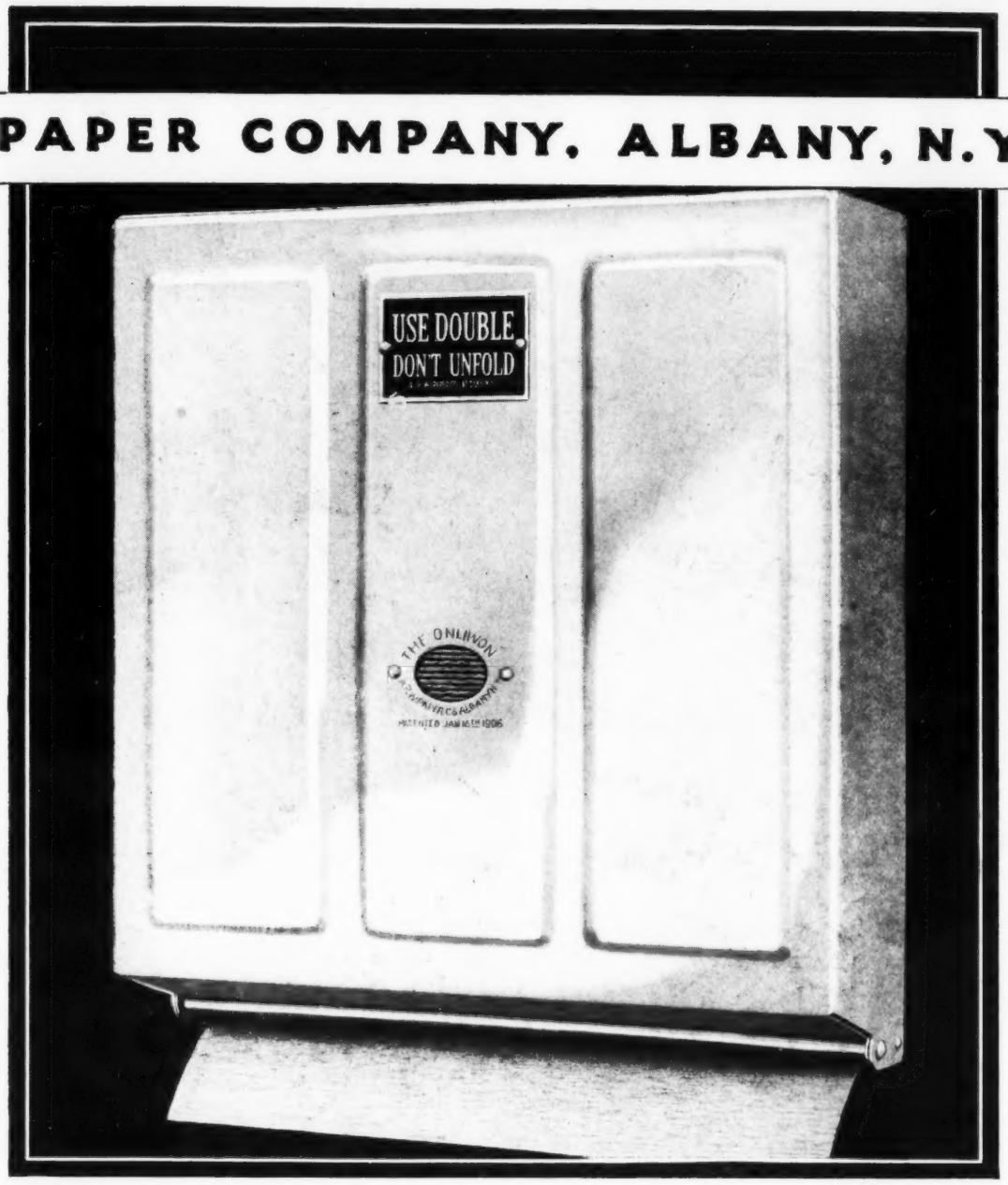
A HOLOPHANE LIGHTING SPECIFIC is a device for distributing the light of the lamp exactly as required by a SPECIFIC set of conditions. HOLOPHANE COMPANY, INC., 342 Madison Avenue, New York.

Opposite is Filterlite — a Holophane Specific for classroom lighting. Write for booklet "The Lighting of Schools — A Guide to Good Practice."

H O L O P H A N E

NEW YORK • SAN FRANCISCO • CHICAGO • MILWAUKEE • TORONTO

A. P. W. PAPER COMPANY, ALBANY, N.Y. U.S.A.



Onliwon towel cabinet, pressed steel finished in white lacquer. Lock to prevent waste and theft. Window to show when refilling is needed.

Why one Onliwon Towel does the work of two

AS it comes from the cabinet, each Onliwon towel is folded double. This increases its absorbency many times, doubles the strength of the towel—keeps wet hands from tearing through.

One Onliwon towel wipes hands or face completely dry. It does the work of two ordinary towels. What's more, with the Onliwon cabinet a separate effort is necessary to get a second towel. This feature is important. It prevents waste.

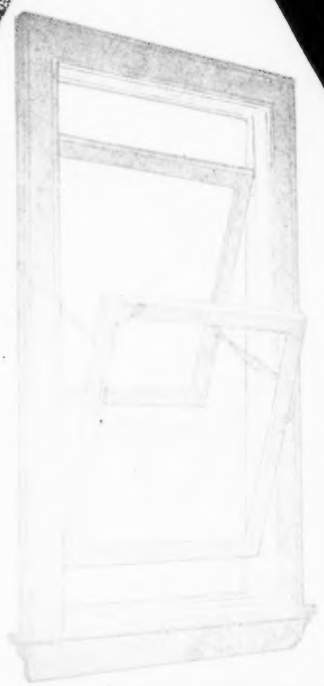
Onliwon service is nationwide. Wherever you are, there's an Onliwon distributor nearby ready to serve your needs.

A. P. W. Paper Company, Albany, New York, U. S. A.

Onliwon

TOILET PAPER AND PAPER TOWEL SERVICE

AUSTRAL WINDOWS



LIKE the soundness of a check endorsed by a reliable person, so the worth of Austral Windows is evidenced by the long list of architects who are consistently endorsing them in their specifications. Austral is synonymous with Standard.

AUSTRAL WINDOW COMPANY

101 PARK AVE., NEW YORK